

HUMAN BEHAVIOR COURSE

BLOCK II SYLLABUS ASSESSMENT AND DIAGNOSIS

Academic Year 2004

HUMAN BEHAVIOR COURSE 2004

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HUMAN BEHAVIOR COURSE 2004

DATES

JANUARY 8 (THURSDAY).....COURSE STARTS

FEBRUARY 19 (THURSDAY).....**MANDATORY:** FIRST SMALL GROUP

MARCH 4 (THURSDAY).....BLOCK ONE EXAM

APRIL 2 (FRIDAY).....LAST DAY TO DECLARE INTENT & TOPIC FOR PAR PROJECT

APRIL 2 (FRIDAY).....**MANDATORY:** SECOND SMALL GROUP

APRIL 7 (WEDNESDAY).....BLOCK TWO EXAM

APRIL 9 (FRIDAY).....**MANDATORY:** THIRD SMALL GROUP

APRIL 19 (WEDNESDAY).....**MANDATORY:** TORREY & FRESE LECTURE ON SCHIZOPHRENIA

APRIL 26 (MONDAY).....PAR PROJECT DUE (BONUS POINTS)

APRIL 26 (MONDAY).....BLOCK THREE EXAM

APRIL 26 (MONDAY).....**MANDATORY:** FOURTH SMALL GROUP

APRIL 28 (WEDNESDAY).....**MANDATORY:** JAMISON LECTURE ON SUICIDE & MOOD DISORDERS

MAY 5 (WEDNESDAY).....BLOCK FOUR & FINAL EXAM

MAY 15 (FRIDAY).....FINAL COURSE GRADES POSTED

HUMAN BEHAVIOR COURSE 2004

OBJECTIVES

MAIN OBJECTIVE. Introduce second-year medical students to the theory and practice of psychiatry and biopsychosocial patient care.

LEARNING OBJECTIVES.

Students should achieve the following objectives during the Human Behavior Course:

1. Learn the phenomenology and range of normal and disordered behavior, emotions, and relationships over the human life span.
2. Grasp the concept and application of the biopsychosocial model to general medical and psychiatric care.
3. Learn and practice how to create biopsychosocial formulations and management plans for patients.
4. Understand and discuss the impact of various predisposing, protective, precipitating, perpetuating, and therapeutic factors on the natural history of psychiatric disorders.
5. Rehearse prioritized differential diagnoses based on appropriate nomenclature, diagnostic categories, and criteria using patient vignettes or actual patient histories.
6. Develop a foundation of knowledge and experience in psychiatry that is applicable to medical practice and a framework for new knowledge obtained using various life-long learning strategies.

HUMAN BEHAVIOR COURSE 2004

ATTENDANCE

ABSENCES. To be excused from any mandatory activity (e.g., small groups, examinations) you must notify Dr. Engel in writing **AT LEAST 24 HOURS** prior to your absence, emergencies excepted.

ALL SMALL GROUPS ARE MANDATORY. They will meet in rooms and labs as assigned. Please see "Small Group Assignments" section of the syllabus for details. The small group sessions may be found in the main class schedule (course hours 15, 22, 27, and 36).

SOME LECTURES ARE MANDATORY. Some of the course lectures are mandatory because guest lecturers, patients, or family members of patients are volunteering their time (and in some cases traveling great distances) to speak to the class. **Mandatory lectures are bolded in the main class schedule.** To learn more about the lecturers, see the "Lecturers" section of this syllabus.

CONSEQUENCES OF MISSING MANDATORY ACTIVITIES. Role is taken at all mandatory lectures and small groups. More than one unexcused absence from the mandatory course activities (lectures plus small groups) will drop the responsible student's course grade one letter grade (e.g., drop from B to C or from C to D). A more protracted pattern of unexcused absences (i.e., more than 3) may result in a failing course grade.

HUMAN BEHAVIOR COURSE 2004 TEXT & REQUIRED READINGS

REQUIRED COURSE READINGS ARE FROM:

Cohen BJ. *Theory and Practice of Psychiatry*. Oxford University Press, New York, NY; 2003. Students should review the assigned readings prior to attending lectures. This book is lent to each student for the duration of the course. Please don't mark in these books because they will be reused.

THE REFERENCE TEXT FOR THE COURSE IS:

Hales RE, Yudofsky SC, Editors. *Textbook of Clinical Psychiatry*, 4th Edition. American Psychiatric Press, Washington, DC; 2002. This book has been issued to students and comes with a CD-ROM version of the complete *Diagnostic & Statistical Manual, Fourth Edition (Text Revision)* (DSM-IV-TR). DSM-IV-TR is the principal diagnostic manual used in clinical psychiatry. Neither these two books are required reading for the Human Behavior Course. However they are useful reference texts that provide broader and more comprehensive coverage of psychiatry than the Cohen book.

NOTE: The Hales & Yudofsky chapter on normal development (chapter 2) is *required* reading for the normal development lectures in the course that are delivered by Dr. Gemelli. This is the only exception to the rule that Hales & Yudofsky is not required reading for the course.

HUMAN BEHAVIOR COURSE 2004 SCHEDULE (V3)

Lectures are in Lecture Room D unless otherwise noted.

PART I.			FUNDAMENTALS.	LECTURER
1.	8 Jan THU	0730- 0745	Course Introduction READ: Introductory Parts of the Syllabus	Engel
2.	8 Jan THU	0745- 0820	Global Burden of Psychiatric Disorders READ: Syllabus	Engel
3.	8 Jan THU	0830- 0920	Neurobiology of Psychiatric Disorders One READ: Syllabus & Cohen Ch 4	Lacy
4.	15 Jan THU	0730- 0820	Neurobiology of Psychiatric Disorders Two READ: Syllabus & Cohen Ch 4	Lacy

PART II.			DEVELOPMENT.	LECTURER
5.	15 Jan THU	0830- 0920	Suicide READ: Cohen Ch 16	Engel
6.	22 Jan THU	0730- 0820	Infancy & Toddlerhood READ: Hales & Yudofsky Ch 2:67-105	Gemelli
7.	22 Jan THU	0830- 0920	Infancy & Toddlerhood READ: Hales & Yudofsky Ch 2:67-105	Gemelli
8.	29 Jan THU	0730- 0820	Childhood READ: Hales & Yudofsky Ch 2:67-105	Gemelli
9.	29 Jan THU	0830- 0920	Childhood READ: Hales & Yudofsky Ch 2:67-105	Gemelli
10.	5 Feb THU	0730- 0820	Adolescence READ: Hales & Yudofsky Ch 2:67-105	Gemelli
11.	5 Feb THU	0830- 0920	Adolescence READ: Hales & Yudofsky Ch 2:67-105	Gemelli

PART III.			ASSESSMENT	LECTURER
12.	12 Feb THU	0730-0820	Psychiatric Evaluation, Diagnosis, & Formulation READ: Cohen Ch 1, 2, 3	Engel
13.	12 Feb THU	0830-0920	Violence READ: Cohen Ch 17	Engel
14.	17 Feb TUE	0730-0820	Adult Development READ: Syllabus only	Privitera
15.	19 Feb THU	0730-0920	DIAGNOSIS & FORMULATION ONE TOPIC: Introduction to Diagnosis & Formulation READ: Syllabus only	Faculty

PART IV.			MAJOR DISORDERS.	LECTURER
16.	26 Feb THU	0730-0820	Delirium READ: Cohen Ch 5	Engel
17.	26 Feb THU	0830-0920	Dementia READ: Cohen Ch 6	Engel

BLOCK 1 EXAM		THURSDAY MARCH 4 0830-0920 [COVERS LECTURE HOURS 2-15]
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PART IV.			MAJOR DISORDERS.	LECTURER
18.	29 Mar MON	0730-0820	Psychotherapies One READ: Cohen Ch 18	Ursano
19.	29 Mar MON	0830-0920	Psychotherapies Two READ: Cohen Ch 18	Ursano
20.	31 Mar WED	0730-0820	Schizophrenia & Psychosis One READ: Cohen Ch 8	Torrey Frese
21.	31 Mar WED	0830-0920	Schizophrenia & Psychosis Two READ: Cohen Ch 8	Torrey Frese
22.	2 Apr FRI	0730-0920	DIAGNOSIS & FORMULATION II TOPIC: Gender-Related Issues READ: Syllabus only	Faculty
23.	5 Apr MON	0930-1020	Anxiety Disorders One READ: Cohen Ch 9	Engel

24.	5 Apr MON	1030- 1120	Substance Use Disorders READ: Cohen Ch. 12	Holloway
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BLOCK 2 EXAM	WEDNESDAY 7 APRIL 0730-0820 [COVERS LECTURE HOURS 16-24]
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PART IV.		MAJOR DISORDERS (Continued).		LECTURER
25.	7 Apr WED	0830- 0920	Somatoform & Related Disorders READ: Cohen Ch 13	Engel
26.	7 Apr WED	0930- 1020	Reactions to Stress & Trauma READ: Cohen Ch 9:273-280; Ch 7:Table 7-6; & Ch 14	Osuch
27.	9 Apr FRI	0730- 0920	DIAGNOSIS & FORMULATION III TOPIC: Social & Cultural Aspects of Psychiatry READ: Cohen Ch 7	Faculty
28.	12 Apr MON	0730- 0820	Eating Disorders READ: Cohen Ch 11	Hall
29.	12 Apr MON	0830- 0920	Developmental Disorders & Mental Retardation READ: Cohen Ch 19	Randall Hanson
30.	14 Apr WED	0930- 1020	Childhood Disorders READ: Cohen Ch 19	Waldrep
31.	14 Apr WED	1030- 1120	Personality Disorders: Introduction & Cluster A Disorders READ: Cohen Ch 10	Engel
32.	19 Apr MON	0930- 1020	Mood Disorders One Read: Cohen Ch 7	Engel
33.	19 Apr MON	1030- 1120	Anxiety Disorders Two READ: Cohen Ch 9	Engel

PART V.		THERAPEUTICS.		LECTURER
34.	21 Apr WED	0930- 1020	Forensic Psychiatry READ: Cohen Ch 20	Benedek
35.	21 Apr WED	1030- 1120	Schizophrenia & Psychosis Three READ: Cohen Ch 8	Engel

BLOCK 3 EXAM	MONDAY 26 APR 0730-0820 [COVERS LECTURE HOURS 25-31]
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PART V.			THERAPEUTICS (Continued).	LECTURER
36.	26 Apr MON	0830- 1020	DIAGNOSIS & FORMULATION IV TOPIC: The Geriatric Patient READ: Syllabus	Faculty
37.	28 Apr WED	0930- 1020	Mood Disorders Two READ: Cohen Ch 7	Jamison
38.	28 Apr WED	1030- 1120	Mood Disorders Three READ: Cohen Ch 7	Jamison
39.	3 May MON	0930- 1020	Sexual & Gender Identity Disorders READ: Cohen Ch 15	Engel

PART VI.			SPECIAL TOPICS.	LECTURER
40.	3 May MON	1030- 1120	Personality Disorders: Cluster B and Cluster C Disorders READ: Cohen Ch 10	Engel
41.	4 May TUE	0930- 1020	Military Psychiatry READ: Syllabus	Holloway
42.	4 May TUE	1030- 1120	Comprehensive Review Session	Engel

FINAL EXAM		WEDNESDAY 5 MAY 0730-1030 [COMPREHENSIVE BUT EMPHASIZES LECTURE HOURS 32-42]
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HUMAN BEHAVIOR COURSE 2004

GRADING

POSTING OF GRADES. During the course, exam grades will be posted outside Dr. Engel's office, B3066.

EXAM EMPHASIS. Not all topics will receive equal emphasis on examinations. Generally, lecture topics are weighted on the exams in proportion to the amount of class time spent on them. Topics that receive a little more emphasis on exams than one might expect from the amount of course time spent on them include neuropsychiatry, mood disorders, schizophrenia, substance use disorders, disorders resulting from situational stressors, anxiety disorders, suicide and violence.

CHALLENGES TO EXAM QUESTIONS. Students will have five working days after exam grades are posted to challenge exam questions. Challenges are to be submitted electronically to the class representative, who collates them without editing into a single submission to Dr. Engel (cengel@usuhs.mil).

To successfully challenge an answer to any Human Behavior Course exam question, students must make their case based upon statements from the book, the lectures, and/or the way the question is worded. All course director decisions regarding exam question challenges are final.

EXAMINATIONS.

Block Exams: 120 points (three exams worth 40 points each)

All examinations will be administered in Lecture Room D. The format for all examinations is the same and consists of single-best-answer multiple choice and extended-matching questions.

Final Exam: 72 points

32 points on this examination will address cumulative course content. 40 points will cover the last course block only.

Small Groups (ATTENDANCE MANDATORY): 8 points (four groups worth up to 2 points each)

There are four small group sessions during the course. Any readings assigned for the small groups are testable for exam purposes. Students earn a grade from 0-2 points per small group session. Small group leaders evaluate and grade student participation (absent & unexcused=0; present=1; active in discussions=2). Student concerns or complaints regarding any small group may be addressed by email to Dr. Engel. Except for determinations regarding excused versus unexcused absences, however, small group leader grades are final. Small group evaluations of student performance can be decisive for students on the border between grades.

Bonus Points: 10 points possible

Up to 10 bonus points will be added to your final grade point average **after** letter grade cutoffs have been determined from examination and small group performance. These points can make a major difference in your overall grade. BONUS POINT ACTIVITIES ARE VOLUNTARY and amount to 'extra credit' work. Bonus points can have a significant impact on your final course grade. Bonus points are earned by successfully completing a **Psychiatry Academic Report (PAR)**, as described the corresponding section of the syllabus. Note that the PAR must be completed on time to be eligible for full credit.

FINAL COURSE GRADES.

Final grades will be disseminated to students at the end of the course. The final grade will reflect each exam score, each small group grade, and any bonus points received during the course. If you wish to have us email your final grade to you, please notify Dr. Engel or Jennifer Stecklein at or before the Final Exam.

FINAL COURSE POINT TOTAL (up to 210 points)

Block Exams (up to 120 pts) + Final Exam (up to 72 pts) + Small Group (8 pts) + Bonus Points

Dr. Engel will assign all students a preliminary course letter grade based on your course point total before bonus points are added. The ranges listed below are based on the class grades from previous years and serve as a guideline.

CLASS STANDING RELATIVE THE MEAN IN SD	GRADE
Greater than +1.1 SD from Class Mean	A
Class Mean to + 1.1 SD From Class Mean	B
-1.5 SD to Class Mean	C
-2.0 SD to -1.5 SD from Class Mean	D
Less than -2.0 SD from Class Mean	F

Once the class curve and individual grade cut points have been established, bonus points are added, and the final course point total and grade are determined. Academic Awards will be based on your final course point total that includes your bonus points. A letter grade of "I" (incomplete) will be given for failure to complete required assignments, tests, or the final course evaluation.

Some years, students score very well as a group, leading to an unfairly difficult class curve. To prevent this from occurring, any student with a final course point total of 90% or greater is insured an "A", 80% or greater at least a "B", 70% or greater at least a "C", and 65% or greater at least a "D."

ACADEMIC DIFFICULTIES.

What the department will do:

- **After the Block 2 Exam.** Any student with a cumulative point total of less than -2.0 SD who is scoring less than 65% on the first two examinations must meet with Dr. Engel to discuss the situation.
- **After the Block 3 Exam.** Any student with a cumulative point total of less than -2.0 SD who is scoring less than 65% on the first two examinations will be offered a plan of remedial action. The student and the Associate Dean for Student Affairs will be notified of the potential for academic deficiency.

What you can do:

- *Don't* wait for the last minute.
- *Don't* be afraid to ask for assistance.
- *Don't* take the course lightly. We do everything we can to get students successfully 'past the finish line'. However, every year four or five people struggle to get a 'C' final grade, and one or two students struggle to get a 'D' final grade. A small percent of students have failed the course (perhaps one student in every 200 or so that take the course) and must either take it again, complete a PAR after the course is over (getting in the way of spring USMLE exams), and/or have to take an extra clinical psychiatry rotation in the fourth year. Don't be one of these students!
- Do anticipate emerging academic or scheduling problems. Meet with Dr. Engel to prevent them. Dr. Engel maintains an open door policy for students, but 'drop-in' visits may sometimes be impossible, so please request an appointment via email ahead of time (cengel@usuhs.mil). Please suggest two or three possible meeting times and wait for Dr. Engel's reply.
- Do Contact Jennifer Stecklein B3066 (295-9799 or 9796 or jstecklein@usuhs.mil) if you have any trouble contacting Dr. Engel.

DISCIPLINARY ACTIONS.

Any student who does not display consistent seriousness of purpose and effort may be denied a letter grade above a C. Small group facilitator evaluations of student performance during small group sessions can be a decisive factor for students who are on the border between the A/B, B/C, or C/D grades. Dr. Engel reserves the right to change a student's letter grade if there is sufficient evidence of inappropriate, disruptive, or unethical behavior. This includes actions disruptive to other students or to faculty.

HUMAN BEHAVIOR COURSE 2004

PAR

CONCEPT. The Psychiatry Academic Report (PAR) is an optional project that allows you to obtain bonus points toward your final course grade (see 'Grading' section in this syllabus). The objective of the project is to cultivate independent learning skills that will be critical to your continued success as a clinician and to give you a chance to pursue a topic of interest in psychiatry.

WHY DO A PAR? The biggest and most immediate benefit is on the course grade. In past years, 80% of individuals completing a PAR raised their final point total enough to come up one full letter grade for the course. A PAR can also bring departmental visibility to the students producing it. Each year, the student completing the best PAR (determined by department faculty consensus) is invited to present his or her work to the entire National Capital Area Department of Psychiatry Grand Rounds at Walter Reed Army Medical Center. There may be the opportunity for other students to similarly present their work too. This kind of visibility may be a big benefit if a student is considering psychiatry as a career. Lastly, a good PAR can support write-ups required in the third year USUHS psychiatry clerkship.

APPROACH. The PAR is an optional project that students complete individually to receive course bonus points (essentially extra credit points). **Student collaboration on PAR projects is not allowed.** In other words, the PAR is an independent project, not a group project. Any student with an innovative idea for a PAR, i.e., one that deviates from the formats described below, is encouraged to discuss his or her idea with Dr. Engel. **All topics and ideas must receive his approval in advance to be accepted for bonus points.**

SUGGESTED FORMATS. Please double-space all PARs.

Format One (Good for up to 10 bonus points): Conventional Report

This type of PAR is essentially a substantial and relatively conventional report on any topic pertaining to Psychiatry. The standards for Format One PARs are as follows:

1. Title page. Include title, author, date of completion.
2. Abstract. Summarize the paper in 250-400 words.
3. The body of the PAR should contain some appropriate visuals such as pictures, tables, or figures.
4. Length of the overall report excluding references should be 4,500-6,000 words (15-25 double-spaced pages of 12-point text with one inch margins).
5. Clinical case examples are often useful to illustrate points but they are not required.
6. PAR literature citations should emphasize primary articles from the medical or social science literature. Citing textbooks is discouraged, but published review articles are acceptable, and often textbooks can help the student to identify relevant primary literature.
 - A. A minimum of 10 and maximum of 30 literature citations is required.
 - B. Citations must be formatted in a consistent manner. The recommended format for citations may be found in the "information for authors" posted in the journal *JAMA* (see <http://jama.ama-assn.org/info/auinst.html>).

Format Two (Good for up to 10 bonus points): Book Report/Review.

Novel or biographical account that focuses on an individual with an apparent psychiatric disorder. Books may address an individual with a major axis I psychiatric disorder such as schizophrenia (many great books of this sort, for example, *Shine* or *A Beautiful Mind*) or an individual with an axis II disorder such as mental retardation or an apparent personality disorder. The resulting book report would be 3,000-4,000 words (10-15 double-spaced pages of 12-point text with one inch margins) and should focus on a specific issue relevant to psychiatry. The student should clearly state the issue they want to develop after reading the book and use 5-10 references from the medical or social sciences literature to support the discussion. Issues of relevance, for example, might include stigma, patient versus clinician perspective of psychiatric disorders, the range of disability associated with psychiatric disorders, or differential diagnosis of a particular psychiatric symptom or sign. **Students should seek course director approval or advice regarding an appropriate book before reading it for the course.** To receive bonus points, the student must read the book during the period of time

encompassing the Human Behavior Course. Students are not allowed to report on a book they have previously read.

Format Three (Good for up to 5 bonus points each, but students can do up to two for a maximum of 10 total bonus points). Movie Review.

Movies reviews should address a movie that focuses on an individual with an apparent psychiatric disorder. Movies may address an individual with a major axis I psychiatric disorder such as schizophrenia or an individual with an axis II disorder such as mental retardation or an apparent personality disorder. The resulting movie review should be 2,000-3,000 words (7-10 double-spaced pages of 12-point text with one inch margins) and should focus on a specific issue relevant to psychiatry. The student should clearly state the issue they want to develop after reading the book and use up to 5 references from the medical or social sciences literature to support the discussion. Issues of relevance, for example, might include stigma, patient versus clinician perspective of psychiatric disorders, the range of disability associated with psychiatric disorders, or differential diagnosis of a particular psychiatric symptom or sign. **Students should seek course director approval or advice regarding an appropriate movie to review before watching it for the course.** To receive bonus points, the student must watch the movie during the period of time encompassing the Human Behavior Course. Students are not allowed to report on a movie they have previously viewed.

GRADING. Dr. Engel will coordinate Department of Psychiatry faculty reviews of and grades for the completed PARs.

DUE DATES. To receive bonus points, you must submit your topic(s) to Dr. Engel on email (cengel@usuhs.mil) by **COB Friday April 2**. Any student missing this deadline cannot receive bonus points (exceptions to this rule may be made for students who discover late that they are struggling to pass the course – note that this exception will not be extended to people are otherwise passing and decide late that they want to raise their grade). A completed electronic version of the PAR must be submitted to Dr. Engel by **COB Monday April 26** (please note that this is also the date of the block 3 examination, so students are warned not to wait until the last minute to complete the PAR). PARs submitted late but before May 3 will be accepted but cannot receive more than half credit. PARs submitted after COB April 28 will not receive bonus points unless by previous arrangement with Dr. Engel (usually reserved for students struggling to pass the course or students with extenuating personal circumstances that prevent them from meeting the regular deadline).

PLAGIARISM: It is increasingly easy to plagiarize previously written reviews or reports by cutting and pasting material from the World Wide Web and other source material. All PARs are submitted to a web-based service that reviews them for evidence of plagiarism. Any student who has plagiarized all or part of their PAR will be punished to the maximum extent allowed by University policy.

HUMAN BEHAVIOR COURSE 2004

WEB

THE HUMAN BEHAVIOR COURSE WEBSITE IS AT <http://cim.usuhs.mil/ps02001/>

WEBSITE PURPOSE. The course website is a centralized repository for course materials. Content includes:

1. A homepage with recent course announcements and reminders.
2. A bulletin board for asking questions pertinent to other students.
3. Syllabus materials – for example, notices regarding modifications may be found on the site.
4. Study materials – for example, old exams.
5. Downloadable lecture slides.
6. Class curves, answers to the exams, and responses to student exam challenges.

ACCESSING THE SITE. It is recommended that you access the course website once each week. This will insure you don't miss important course announcements and other developments. Having said that, all course announcements will be sent via email at the same time it is placed on the website. Emails to the students will routinely contain a link to the course website reminding students to log in to the site. If you have any trouble linking to the site, please contact Jennifer Stecklein or Dr. Engel for assistance.

SOME OTHER INTERNET PSYCHIATRY RESOURCES.

These Internet resources may prove useful during the course or in the future. For students planning to complete the Psychiatry Academic Report (PAR) for up to five bonus points at the end of the course, these links may provide useful leads when planning for web-links to sites related to your report. There is also a website for obtaining software compatible with the Palm OS. There are many programs relevant to psychiatry that are designed to run on the students' issued palm devices.

USEFUL SITES FOR RESEARCHING THE PAR BONUS PROJECT.

PubMed.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>

Particularly user-friendly.

Free Medical Journals.com.

<http://www.freemedicaljournals.com/>

Good for finding full text journal articles and/or abstracts of key articles from the peer-reviewed medical literature.

Evidence-Based Mental Health.

<http://www.ebmentalhealth.com>

This site covers the quarterly journal, "Evidence-Based Mental Health". The journal summarizes clinically relevant evidence of clinical utility for psychiatrists and other clinicians.

Palm, Inc. Software Site.

<http://www.handango.com/>

Go to the 'search for software' box, and enter terms like 'psychiatry', 'psychiatrist', 'mental', 'psychology', and 'psychologist' and see what comes up. Lots of inexpensive and often useful software for PDAs. Be sure to check out a shareware program called, "Eliza Pilot Psychologist".

USEFUL SITES FOR MEDICAL STUDENTS LEARNING PSYCHIATRY.

CAUTION! The accuracy of the information found on the web varies from site to site and sometimes from topic to topic within a given site. In short, the sites below are variably quality controlled, so while we endorse their general use, Dr. Engel, Dr. Privitera, and the Department of Psychiatry at USUHS do not "stand behind" the information found on them.

Emergency Psychiatry Service Handbook.

<http://www.vh.org/Providers/Lectures/EmergencyMed/Psychiatry/TOC.html>

A Virtual Hospital and a University of Iowa Hospitals and Clinics sponsored tool.

US Naval Flight Surgeon's Manual – Psychiatry.

<http://www.vnh.org/FSManual/06/SectionTop.html>

A Virtual Naval Hospital product is available for 330 page adobe file download called “Aviation Psychiatry Handbook”.

Iowa Family Practice Handbook – Psychiatry.

http://www.vh.org/navigation/vh/topics/adult_provider_psychiatry.html

Internet Mental Health – Psychiatry.

<http://www.mentalhealth.com/>

Merck Manual – Psychiatry.

<http://www.merck.com/pubs/mmanual/section15/sec15.htm>

HUMAN BEHAVIOR COURSE 2004 SMALL GROUPS

Small groups are central to the structure of the Human Behavior Course. Small groups meet for four small group sessions (see the "Schedule" or "Dates" sections of this syllabus). All of these small group meetings will take place in the rooms designated below. **SMALL GROUP SESSIONS ARE MANDATORY.**

GROUP	STUDENT NAMES	ROOM NUMBER & STUDENT NAMES
Group A		Room A2015
	Adams, Michael Burkhardt, Gabriel Callis, William Damasco, Leo Egloff, Brian George, Jennifer Gray, Jon	Haggerty, Paul Kaesberg, Julie Matthews, Tokunbo Rabens, Clayton Schwalier, Erik Talley, William
Group B		Room A2052A
	Adams, Thomas Barker, Patrick Dansie, Chad Faircloth, Ruth Kent, Zachary Lefringhouse, Jason Lynch, Michelle	McArthur, Conshombia Nasir, Javed Odone, James Porsi, Luke Rao, Luigi Ugochukwu, Obinna
Group C		Room A2052B
	Afiesimama, Boma Campos, Napoleon Daschbach, Emily Harper, Stephen Ignacio, Patrick Jacobs, Justin Mack, Takman	Moore, Matthew Neiner, James Padlan, Claire Rappe, Jodie Seigh, Mark Tan, Erico
Group D		Room A2053A
	Ajao, Michael Barna, Michael Capra, Gregory Gim, Sylvia Harris, Jason Kho, Ellie Lackey, Jeffrey	Maddox, John Martinez-Ross, Juan Palmer, Eldon Quan, Sara Redding, Shawn Shaffer, Brett

GROUP	STUDENT NAMES	ROOM NUMBER & STUDENT NAMES
Group E		Room A2053B
	Aldrich, Shelly Barstow, Craig Fasoldt, Jerry Gratrix, Max Jones, Ronald Lanzi, Joseph McArthur, Samuel	Neuffer, Marcus Patel, Shimul Reha, Jeffery Shayegan, Shahrooz Sundell, Zoe Royster, Don
Group F		Room A2069
	Allan, Nicholas Baldwin, Allister Capra, Jason Dimmer, Brian Ferguson, Katrina Gray, Kelly Hilton, William	Kitley, Charles Lee, Mary Nijjar, Upneet Paul, Michael Rice, Jason Simpson, Michael
Group G		Room A2039
	Angelidis, Matthew Bernzott, Stephanie Carbone, Peter Dirks, Michael Fernelius, Colby Lesperance, Richard Levy, Gary	McGill, Robert McPherson, John Payne, Kathryn Robinson, David Smith, Ryan Wright, Heath
Group H		Room A2041
	Arner, David Bode, David Cho, Timothy Downs, John Gregory, Leslie Hobernicht, Susan Lewis, Aaron	Mei, Jian Pederson, Aasta Rodgers, Blake Soto, Adam Tou, Kevin Wells, Nicholas
Group I		Room A2045
	Arnett, Gavin Brown, Jamey Cleaves, John Fick, Daryl Gudeman, Suzanne Hunsaker, John Kraus, Gregory	Lewis, Troy Messmer, Caroline Penska, Keith Rodgers, Matthew Stringer, Sarah Treffer, Christine

GROUP	STUDENT NAMES	ROOM NUMBER & STUDENT NAMES
Group J		Room A2049
	Arnold, Michael Bryant, Summer Covey, Carlton Flaherty, Kathleen Gregory, Todd Liebig, Jonathan Liu, Scott	Mielcarek, Emily Phinney, Samuel Rogers, Derek Rose, David Summers, Noelle Vojta, Christopher
Group K		Room A2057
	Cragin, Douglas Fowler, Elizabeth Gwinn, Barbara Knudson, Todd Loveridge, Benjamin Longwell, Jason Lotridge, Jessica	Montenegro, Karla Moore, Jacqueline Pieroni, Kevin Rose, Matthew Summers, Thomas Wherry, Sean
Group L		Room A2061
	Bernhard, Jason Fox, David Hamele, Mitchell Luger, Richard Macian Allen, Diana Miletich, Derek Musikasinthorn, Chayanin Musser, John	Nelson, Austin Nelson, Austin Palmer, Bruce Rice, Robert Wright, Heath Vachon, Tyler
Group M		Room A2065
	Freeman, Benjamin Hicks, Brandi Loughlin, Carrie Lai, Tristan McDivitt, Jonathan Mosteller, David Poulin, John	Ryan, Jenny Sunkin, Jonathan Tintle, Scott White, Dennis Segura, Christopher Wilde, Matthew Weatherwax, Robert

HUMAN BEHAVIOR COURSE 2004 LECTURERS

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HUMAN BEHAVIOR COURSE LECTURERS.

David Benedek, MD MAJ, MC, USA

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Dr. Benedek is a member of the Walter Reed Army Medical Center staff and the National Capital Area Forensic Psychiatry Fellowship Director. He is a USU medical school graduate and completed general psychiatry and forensic psychiatry training in National Capital Area programs. Dr. Benedek was one of the first psychiatrists deployed to Bosnia and has presented his experiences there at an American Psychiatric Association annual meeting. Dr. Benedek comes from a rich family tradition in psychiatry: his mother is a past president of the American Psychiatric Association.

Charles Engel, MD, MPH LTC, MC, USA

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Dr. Engel is co-director of the Human Behavior Course with Dr. Privitera. He is a full-time member of the USU military faculty and the chief of the Deployment Health Center (formerly the Gulf War Health Center) at Walter Reed Army Medical Center, a center specializing in treatment and research related to redeployment health issues, especially unexplained illnesses such as the infamous "Gulf War Syndrome". Dr. Engel is a consultation-liaison psychiatrist and epidemiologist and served as the First Cavalry Division psychiatrist during the Gulf War. His interests include medically unexplained physical symptoms, clinical hazard communication, psychiatric practice in primary care, psychiatric research design, health services research, and teaching psychiatrists how to interpret and use research evidence.

Frederick J. Frese, III, PhD

For 15 years until his retirement in 1995, Fred Frese he served as Director of Psychology at Western Reserve Psychiatric Hospital, a state-operated facility in the Cleveland-Akron area. A member of the National Alliance for the Mentally Ill (NAMI) since 1989, Dr. Frese is currently the First Vice President of its National Board. He currently serves on the Board of the Summit County Alliance for the Mentally Ill.

Dr. Frese has given more than 300 presentations on topics related to serious mental illness in 30 states, Canada, Puerto Rico, and Washington, D.C. He has published extensively, and has been on the advisory reviewing boards of five professional journals, including Schizophrenia Bulletin. Along with his wife, Penny, he has also co-produced a widely distributed training video about coping with schizophrenia.

Dr. Frese has been a faculty member at Case Western Reserve University, Kent State, Ohio University, and Ashland Theological Seminary. He has also served as Chairperson of the Akron Area Mental Health Board. Dr. Frese was the founder and first president of Community and State Hospital Psychologists, the American Psychological Association's division for psychologists serving persons with serious mental illness. He also was on the Board of Trustees of the Ohio Psychological Association, where he served as Chair of the committee for the Mentally Ill Homeless. Additionally, he served as president of the National Mental Health Consumers' Association.

Dr. Frese served as a consultant to the Department of Veterans Affairs on a project to improve clinical practice. He has testified before congressional committees on priorities for public mental health services and is a part of the American Psychological Association Task Force for the Seriously Mentally Ill/Seriously Emotionally Disturbed.

Ralph Gemelli, MD CAPT(RET), MC, USN

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Dr. Gemelli is the founder of the USU Human Behavior Course, is a past psychiatric residency training director at National Naval Medical Center, and has been teaching the normal development portion of the course for many years. He is a psychoanalyst and is currently on the teaching faculty at the prestigious Washington Psychoanalytic Institute. He has recently published an excellent book on normal childhood development (10 copies are available for students in the library). Students consistently rate Dr. Gemelli's lectures as among the very best in the second year, and he is the recipient of numerous teaching awards. Dr. Gemelli is a Naval Academy graduate; the first Academy graduate to go directly into medical school upon completion of his Annapolis education.

Molly Hall, MD Col, MC, USAF

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Dr. Hall is assigned to the Department of Psychiatry, USUHS as an associate professor. She has served in several capacities in the National Capital Area including Chief, Clinical Quality Management Division, Air Force Medical Operations Agency, Bolling AFB (1998-2000); Flight Commander, Mental Health Flight 89th Medical Group, Andrews AFB (1995-1998) and Consultant for Psychiatry to the USAF Surgeon General (1995-1999). Dr. Hall attended Yale College as a member of the first class of women and graduated magna cum laude in 1973 with Departmental Honors in Combined Sciences, Biology and Psychology. Col Hall attended Cornell University Medical College where she was elected to Alpha Omega Alpha in 1976. She joined the Air Force in 1985 and was assigned to Wright-Patterson AFB where she was the Psychiatry Residency program director until 1995. Col Hall received numerous Wright State University faculty awards, including the Career Achievement award in 1995 and was the recipient of the first annual Excellence in Medical Education award conferred by the American Psychiatric Association (APA) in 1991. She has served as a psychiatric consultant to the Astronaut Selection Board at NASA since graduating from the Aerospace Primary Course at Brooks AFB in 1990. Col Hall is a distinguished graduate of the Aerospace Medicine Course and a distinguished graduate of the Air War College Seminar. Col Hall has four children: Kate, Aaron, Hannah and Sarah and three dogs: Elsa, Bou and Merlin.

Jan Hanson, PhDjhanson@usuhs.mil

Dr. Hanson is a special educator and Research Assistant Professor of Pediatrics. She and Dr. Randall co-direct a project that involves parents of children with special needs and adults with chronic health conditions as advisors to the medical education program at USUHS. They have presented abstracts about family-centered care, involving patients and families as advisors, and the patient/physician relationship at many professional meetings. Before coming to USUHS, Dr. Hanson was Director for Research and Evaluation at the Institute for Family-Centered Care from 1992-1999. She has worked in a wide variety of educational and research settings, including special education programs for children of all ages, the DoD system of services for children with special needs, and pre-service and in-service education programs for educators and physicians. Dr. Hanson and Dr. Randall along with several parents will teach the lecture on developmental and learning disorders.

Harry Holloway, MD COL(RET), MC, USAhhollowa@impop.bellatlantic.net

Dr. Holloway is internationally respected as the dean of modern military psychiatry. He served thirty years in the US Army Medical Corps including tours in the Vietnam War, Thailand, and Walter Reed Army Institute of Research. He has around 50 publications and many scholarly works to his credit. He finished his active duty career as the first Chairman of Psychiatry at USU and later held positions as Deputy Dean and Acting Dean of the medical school and the director of life sciences at NASA. Arguably, Dr. Holloway knows more about substance abuse in the military than any other physician does. Currently, he is a co-principal investigator on a project aiming at assembling a scholarly history of substance use in the military through the year 1985. Dr. Holloway will speak to us on alcohol and other substance abuse, disorders due to traumatic events, and on military psychiatry.

Kay Redfield Jamison, PhD

Dr. Jamison is the daughter of an Air Force officer and was brought up in the Washington, D.C. area. She attended UCLA as an undergraduate and as a graduate student in psychology, and she joined the medical school faculty there in 1974. She later founded the UCLA Affective Disorders Clinic, which has treated thousands of patients for depression and manic-depression.

Dr. Jamison is now Professor of Psychiatry at the Johns Hopkins University School of Medicine. The textbook on manic-depressive illness that she wrote in association with Dr. Frederick Goodwin was chosen in 1990 as the Most Outstanding Book in Biomedical Sciences by the Association of American Publishers. She is also the author of, *Touched with Fire: Manic-Depressive Illness and the Artistic Temperament* (1993), and has produced three public television specials on the subject: one on manic-depressive composers, one on Vincent van Gogh, and one on Lord Byron. In recent years she has written and spoken extensively on her own battle with bipolar disorder, publishing two award winning books, one on bipolar disorder (*An Unquiet Mind*, 1997), and one on suicide (*Night Falls Fast: Understanding Suicide*, 2000)

The recipient of numerous national and international scientific awards, Dr. Jamison was a member of the first National Advisory Council for Human Genome Research, and is currently the clinical director for the Dana Consortium on the Genetic Basis of Manic-Depressive Illness.

Timothy Lacy, MD Maj, MC, USAFtlacy@usuhs.mil

Dr. Lacy is the Malcolm Grow Medical Center site director for the National Capital Area Psychiatry Residency Program and the director of Family Practice - Psychiatry Combined Residency Program. Dr. Lacy is a graduate of Wilford Hall Air Force Psychiatry Residency Program. He is an expert on neuropsychiatry.

Charles Privitera, MD COL(RET), MC, USA

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Dr. Privitera is co-director of the Human Behavior Course with Dr. Engel. USU students know him best as the psychiatrist at the USU Student Health Center. He is a noted teacher and practitioner of family therapy who is a past USU Dean for Student Affairs. Dr. Privitera has many years of experience in academic medicine and medical student education. His parallel and complimentary roles as student counselor, mentor, and colleague make him ideally suited to teach the course lectures on adult development, the military family, and medical marriages. Dr. Privitera retired from Army medicine after a long and decorated military career.

Ginny Randall, MD COL, MC, USA

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Dr. Randall is a developmental pediatrician interested in children under three years of age with developmental disabilities such as cerebral palsy, mental retardation, and autism. She has been an Army pediatrician for 27 years, first as a general pediatrician in Alaska for 6 years, then specializing in developmental pediatrics, then doing a 9 year stretch at the Army Surgeon General's Office working on the policy and budget associated with the care of children with special needs in overseas locations. Currently, Dr. Randall is teaching pediatrics at USU and collaborating with Dr. Hanson in research involving parents of children with special needs as participants and facilitators of medical education.

E. Fuller Torrey, MD

Dr. Torrey is an internationally respected expert, clinician, and scientist specializing in schizophrenia and bipolar disorder. He is the Executive Director of the Stanley Foundation Research Programs, which supports research on schizophrenia and bipolar disorder. From 1976 to 1985, Dr. Torrey was on the clinical staff at St. Elizabeths Hospital, specializing in the treatment of severe psychiatric disorders. From 1988 to 1992, he directed a study of identical twins with schizophrenia and bipolar disorder. His research has explored viruses as a possible cause of these disorders, and he has carried out research in Ireland and Papua New Guinea. Dr. Torrey was educated at Princeton University (BA, Magna Cum Laude), McGill University (MD), and Stanford University (MA in Anthropology). He trained in psychiatry at Stanford University School of Medicine. He practiced general medicine in Ethiopia for two years as a Peace Corps physician, in the South Bronx in an OEO health center, and in Alaska in the Indian Health Service. From 1970 to 1975, he was a special assistant to the Director of the National Institute of Mental Health.

Dr. Torrey is the author of 16 books and more than 200 lay and professional papers. Some of his books have been translated into Japanese, Russian, Italian, and Polish. Dr. Torrey has appeared on national television (e.g., Donahue, Oprah, 20/20, 60 Minutes, and Dateline) and has written for many newspapers. He received two Commendation Medals from the US Public Health Service, a 1984 Special Families Award from the National Alliance for the Mentally Ill (NAMI), a 1991 National Caring Award, and in 1999 received research awards from the International Congress of Schizophrenia and from NARSAD.

Robert J. Ursano, MD Col(Ret), USAF, MC

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Dr. Ursano is a rabid Notre Dame football fan. When he is not rooting for the Fighting Irish, he serves as Professor and Chair, USU Department of Psychiatry. Dr. Ursano is an internationally respected expert on psychiatric responses to trauma who has co-authored more than 100 publications and written or edited several books. He is a psychoanalyst who has written and lectured extensively on psychotherapy, including psychotherapy for the medically ill, and he is on the editorial board of the Journal of Psychotherapy Research & Practice and Military Medicine. He completed his undergraduate education at Notre Dame. He went to medical school at Yale, but he doesn't seem to follow the Yale football team very closely.

Douglas A. Waldrep, MD LTC, MC, USA

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LTC Douglas A. Waldrep, MD, is presently assigned to the Department of Psychiatry Walter Reed Army Medical Center, Washington DC. After finishing his undergraduate education at West Point, NY and completing five years as a Field Artillery Officer in the United States Army he attended medical school on an Army scholarship at the Medical University of South Carolina, Charleston SC. He completed his General Psychiatry and Child and Adolescent Psychiatry training at Tripler Army Medical Center, Honolulu, HI. He has had the opportunity to practice in Heidelberg, Germany, Dwight D. Eisenhower Army Medical Center, Ft Gordon GA and presently at Walter Reed Army Medical Center. He has held multiple leadership positions in Army Psychiatry and is presently the Chief, Continuity Services, Assistant Psychiatry Training Director for the National Capital Area, Director of Curriculum, the site-training director for the Walter Reed Psychiatry Program as well as a member of the Center for the Study of Traumatic Stress, Uniformed Services University Bethesda, MD. He has spoken and published in the areas of adult, child and adolescent psychiatry. He is extremely happy to be married to Heda for 22 years and adores his two daughters Megan 21, 3rd year at the University of Georgia, and Caraline 14, a freshman at Sherwood High School, Sandy Spring, MD. His favorite past time is spoiling the women in his life.

**Human Behavior Course
2004**

PART IV

MAJOR DISORDERS

Human Behavior Course 2004

Delirium

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HUMAN BEHAVIOR COURSE 2004

DELIRIUM - SLIDES

LEARNING OBJECTIVES AND STUDY QUESTIONS FOR DISCUSSION.

1. Know the meaning of the terms and concepts listed in slide one below.
2. Name the key defining characteristics of delirium.
3. Contrast delirium and dementia.
4. Why is delirium a medical emergency?
5. List the emergent causes of delirium and describe the clinical history, examination, and tests necessary to investigate them.
6. Name the main risk factors for delirium.
7. Describe the central psychosocial management principles for delirium.
8. Describe the role of medications in the management of delirium.
9. What medications exacerbate or cause delirium?
10. What medical problems exacerbate or cause delirium?

Slide 1

Delirium - Terms & Concepts

- ★ Clinical syndrome versus pathology
- ★ Delirium versus dementia
- ★ Level of consciousness
- ★ ICU psychosis
- ★ Sundowning
- ★ Predisposing (risk) factors
- ★ Asterixis
- ★ Anticholinergic effects
- ★ Deliriogenic medications
- ★ Benzodiazepines
- ★ Antipsychotic agents
- ★ Neuroimaging
- ★ Lumbar puncture
- ★ Electroencephalogram
- ★ Mini-mental status examination



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Delirium: Confused State The Syndrome & The Nomenclature

acute brain failure	infective-exhaustive psychosis
acute brain syndrome	ICU psychosis
acute confusional state	metabolic encephalopathy
acute organic psychosis	oneiric state
acute organic reaction	organic brain syndrome
acute organic syndrome	reversible cerebral dysfunction
acute reversible psychosis	reversible cognitive dysfunction
acute secondary psychosis	reversible dementia
cerebral insufficiency	reversible toxic psychosis
confusional state	toxic confusion state
dysergastic reaction	toxic encephalopathy
exogenous psychosis	beclouded states



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adapted from Hales & Yudofsky, Textbook of Neuropsychiatry, AP Press, 1987

Delirium Diagnostic Criteria

- ★ Disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention.
- ★ Change in cognition (i.e., memory deficit, disorientation, language disturbance, perceptual disturbance) that is not better accounted for by a dementia.
- ★ Develops over a short period (usually hours or days) & tends to fluctuate during the course of the day.
- ★ Clinical finding of a etiologically related general medical condition.



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Delirium	Dementia
<i>Clouding of consciousness</i>	Loss of memory/intellectual ability
<i>Acute onset</i>	<i>Insidious onset</i>
Lasts 3 days to 2 weeks	Lasts months to years
Orientation impaired	Orientation often impaired
Immediate/recent memory impaired	Recent and remote memory impaired
Visual hallucinations common	Hallucinations less common
Symptoms fluctuate, often worse at night	Symptoms stable throughout day
Usually reversible	15% reversible
Awareness reduced	Awareness clear
EEG changes (fast waves or generalized slowing)	No EEG changes

Delirium Epidemiology

- ★ 10-15% patients in general hospital settings
- ★ Risk factors:
 - Elderly patients (60+ y/o)
 - Post-cardiotomy patients
 - Patients with severe burns
 - Patients with brain pathology/cognitive dysfunction
 - Patients in acute substance withdrawal
 - Patients with HIV-spectrum disease
 - Patients with multiple, severe, or unstable medical problems



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Delirium Pathophysiology

- ★ Electroencephalographic changes --
 - Global slowing (hypoactive delirium)
 - Low-voltage fast activity (hyperactive delirium of alcohol withdrawal delirium)
- ★ Neurochemistry --
 - GABA
 - Anticholinergic agents
- ★ Systemic vs. focal --
Cortex & subcortical white matter (Right MCA)



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Delirium Clinical Features

- ★ Prodrome & rapid onset
- ★ Fluctuating course
- ★ Attention deficits
- ★ Arousal disturbance & psychomotor abnormalities
- ★ Disturbance of sleep-wake cycle
- ★ Impaired memory
- ★ Disorganized thinking & impaired speech
- ★ Disorientation
- ★ Neurological abnormalities
- ★ Emotional disturbance



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Table 5-5. "I WATCH DEATH" Mnemonic for Delirium

<i>Infectious</i>	Sepsis, encephalitis, meningitis, syphilis, urinary tract infection, pneumonia
<i>Withdrawal</i>	Alcohol, barbiturates, sedative-hypnotics
<i>Acute metabolic</i>	Acidosis, electrolyte disturbance, hepatic and renal failure, other metabolic disturbances (Glc, Mg, Ca)
<i>Trauma</i>	Head trauma, burns
<i>CNS disease</i>	Hemorrhage, CVA, vasculitis, seizures, tumor
<i>Hypoxia</i>	Acute hypoxia, chronic lung disease, hypotension
<i>Deficiencies</i>	B ₁₂ , hypovitaminosis, niacin, thiamin
<i>Environmental</i>	Hypothermia, hyperthermia, endocrinopathies (diabetes, adrenal, thyroid)
<i>Acute vascular</i>	Hypertensive emergency, subarachnoid hemorrhage, sagittal vein thrombosis
<i>Toxins/drugs</i>	Medications, street drugs, alcohol, pesticides, industrial poisons (carbon monoxide, cyanide, solvents, etc.)
<i>Heavy metals</i>	Lead, mercury

Source: Adapted with permission from Wise MG, Gray KF, Seltzer B: "Delirium, Dementia, and Amnesic Disorders." *American Psychiatric Press Textbook of Psychiatry*, third edition. Washington, DC, American Psychiatric Press, 1999.

Table 5-6. Potentially Deliriogenic Medications (a Partial List)

Antimicrobials (especially penicillins, cephalosporins, quinolones)	Barbiturates
Antiarrhythmics	Benzodiazepines
Anticholinergics (and psychotropic medications with anticholinergic properties)	Corticosteroids
Anticonvulsants	Gastrointestinal agents
Antihistamines (including H ₂ -blockers in antacids and H ₁ -blockers in allergy and sleep aids)	Immunosuppressive agents
Antihypertensive agents (including β -blockers, clonidine)	Lithium
Antineoplastic agents	Muscle relaxants
Antiparkinsonian agents (both anticholinergic and dopaminergic)	Opiates
Antituberculous agents	Salicylates
	Sympathomimetic agents (including amphetamines, phenylpropanolamine)
	Theophylline

Table 5-7. Anticholinergic Drug Levels for 25 Medications (in ng/mL of Atropine Equivalents), Ranked by the Frequency of Their Prescription to Elderly Patients

1. Furosemide	0.22
2. Digoxin	0.25
3. Dyazide	0.08
4. Lanoxin	0.25
5. Hydrochlorothiazide	0.00
6. Propranolol	0.00
7. Salicylic acid	0.00
8. Dipyridamole	0.11
9. Theophylline	0.44
10. Nitroglycerin	0.00
11. Insulin	0.00
12. Warfarin	0.12
13. Prednisolone	0.55
14. α -methyl dopa	0.00
15. Nifedipine	0.22
16. Isosorbide dinitrate	0.15
17. Ibuprofen	0.00
18. Codeine	0.11
19. Cimetidine	0.86
20. Diltiazem hydrochloride	0.00
21. Captopril	0.02
22. Atenolol	0.00
23. Metoprolol	0.00
24. Timolol	0.00
25. Ranitidine	0.22

Source: Adapted with permission from Tune L et al: "Anticholinergic Effects of Drugs Commonly Prescribed for the Elderly: Potential Means for Assessing Risk of Delirium." *Am J Psychiatry* 149:1393-1394, 1992.

Delirium Clinical Assessment

- ★ Goal: Identify reversible causes of delirium.
- ★ Approach:
 - Mental status examination.
 - Physical examination.
 - Laboratory evaluation.



1. Orientation	
What is the date, month, year?	5 points
Where are we (state, city, hospital)?	5 points
2. Registration	
Name three objects and repeat them.	3 points
3. Attention and calculation	
Serial 7s (subtract 7 from 100 and continue subtracting 7 from each answer) or spell "world" backward.	5 points
4. Recall	
Name the three objects above 5 minutes later.	3 points
5. Language	
Name a pen and a clock.	2 points
Say, "No ifs, ands, or buts."	1 point
Three-step command: Take a pencil in your right hand, put in your left hand, then put it on the floor.	3 points
6. Read and obey the following:	
Close your eyes.	1 point
Write a sentence.	1 point
Copy design.	1 point
TOTAL	30 points

Delirium

Medical Management

Manage as a medical emergency

Treat the underlying problem(s)



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Delirium

Emergency Differential Diagnosis

- ★ Wernicke's encephalopathy or Withdrawal
- ★ Hypertensive encephalopathy
- ★ Hypoglycemia
- ★ Hypoperfusion of CNS
- ★ Hypoxemia
- ★ Intracranial bleeding/infection/mass
- ★ Meningitis or encephalitis
- ★ Poisons or medications or metabolic disturbance



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Delirium - Clinical Assessment

Basic Laboratory Evaluation

- ★ blood chemistries:
electrolytes, glucose, BUN & creatinine, LFTs, ammonia,
albumin, sedimentation rate
- ★ complete blood count with differential
- ★ urine drug screen
- ★ arterial blood gas.
- ★ urinalysis.
- ★ electrocardiograph.
- ★ chest x-ray.



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Delirium - Clinical Assessment Additional Laboratory Evaluation

- ★ blood chemistries:
heavy metal screen; thiamine & folate assays; thyroid panel; antinuclear antibodies
- ★ HIV & VDRL
- ★ urine & blood cultures & sensitivities
- ★ serum levels of medications
- ★ urinary porphobilinogen
- ★ CT scan or MRI
- ★ lumbar puncture
- ★ EEG



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Delirium Clinical Outcomes

- ★ Most patients fully recover.
- ★ Some patients develop chronic brain syndromes.
- ★ Some patients die (see below).



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Delirium Prognosis

★ Morbidity.

- Delayed recovery & prolonged length of stay.
- Higher rate of complications.
- Persistent functional impairment.

★ Mortality.

- 25% die within 6 months.



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Recommendations for management of delirium

In the hospital, a quiet, restful setting that is well lighted is best for the confused patient.

1. Consistency of personnel is less likely to upset the delirious patient.
2. Reminders of day, date, time, place, and situation should be prominently displayed in the patient's room.
3. Medication for behavioral management should be limited to those cases in which behavioral interventions have failed.
 - Only essential drugs should be prescribed, and polypharmacy should be avoided.
 - Sedative-hypnotics and anxiolytics should be avoided.
 - Unmanageable behavior also may require low-dose neuroleptics or, alternatively, benzodiazepines with short half-lives (e.g., lorazepam, 0.5 mg twice daily).

Delirium Psychopharmacologic Treatment

Benzodiazepines

only first-line for CNS depressant
withdrawal delirium



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Delirium	Dementia
<i>Clouding of consciousness</i>	Loss of memory/intellectual ability
<i>Acute onset</i>	<i>Insidious onset</i>
Lasts 3 days to 2 weeks	Lasts months to years
Orientation impaired	Orientation often impaired
Immediate/recent memory impaired	Recent and remote memory impaired
Visual hallucinations common	Hallucinations less common
Symptoms fluctuate, often worse at night	Symptoms stable throughout day
Usually reversible	15% reversible
Awareness reduced	Awareness clear
EEG changes (fast waves or generalized slowing)	No EEG changes

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Dementia

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HUMAN BEHAVIOR COURSE 2004

DEMENTIA - SLIDES

LEARNING OBJECTIVES AND STUDY QUESTIONS FOR DISCUSSION.

1. Know the meaning of the terms and concepts listed in slide one below.
2. List the defining features of dementia.
3. Know the clinical criteria for Alzheimer's disease.
4. List the different etiologies of dementia. Know which ones are "reversible". Know which ones are most common.
5. Describe the differential diagnosis and defining features of subcortical dementia.
6. Describe the differential diagnosis and defining features of cortical dementia.
7. Know the basic dementia work-up, and why each test is indicated.
8. Know the clinical stages of Alzheimer's disease and the characteristics of each stage (table 6-5).
9. What neurotransmitters and brain areas have been implicated in Alzheimer's disease?
10. What are the defining pathological lesions associated with Alzheimer's disease?
11. Name the "cognitive enhancers" sometimes used to ameliorate memory problems in Alzheimer's disease?
12. What is the difference between dementia and amnesic disorder?

Slide 1

Dementia - Terms & Concepts

- ★ Delirium versus dementia
- ★ Alzheimer's disease
- ★ Vascular dementia
- ★ Pseudodementia
- ★ Amnesic disorder
- ★ Confabulation
- ★ Head trauma
- ★ Orbitofrontal deficits
- ★ Dorsolateral frontal deficits
- ★ Transient global amnesia
- ★ Temporal lobectomy
- ★ Procedural memory
- ★ Declarative memory
- ★ Retrograde amnesia
- ★ Anterograde amnesia
- ★ Wernicke-Korsakoff syndrome
- ★ Alcohol-induced amnesic disorder
- ★ Wernicke's encephalopathy
- ★ Alcohol induced dementia
- ★ Structural neuroimaging
- ★ Functional neuroimaging
- ★ Positron emission tomography
- ★ Single photon emission tomography
- ★ Capgras syndrome
- ★ Neuritic plaques
- ★ Neurofibrillary tangles
- ★ Beta-amyloid
- ★ ApoE4
- ★ Dementia pugilistica
- ★ Dialysis dementia
- ★ Creutzfeldt-Jakob disease
- ★ Nucleus basalis of Meynert (substantia innominata)



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Dementia - Terms & Concepts 2

- ★ Acetyl choline
- ★ Glutamate
- ★ Stepwise decline
- ★ Parkinson's disease
- ★ Lewy body disease
- ★ Pick's disease
- ★ Huntington's disease
- ★ Subacute spongiform encephalopathies
- ★ Prion
- ★ Kuru
- ★ Bovine spongiform encephalopathy
- ★ Scrapie
- ★ Mini-mental status examination
- ★ Choline acetyltransferase
- ★ Acetylcholinesterase
- ★ Tacrine (Cognex)
- ★ Donepezil (Aricept)
- ★ Rivastigmine (Exelon)
- ★ Galantamine (Reminyl)
- ★ Vitamin E
- ★ L-deprenyl (selegiline)
- ★ Estrogen replacement



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What is Dementia? Dementia Consensus Conference

- ★ Affects the brain & is not mental retardation or psychosis.
- ★ Syndrome with many causes.
- ★ Characterized by sustained intellectual decline.
- ★ Usually long lasting; some types may be arrested or reversed.
- ★ No alteration in consciousness.
- ★ Almost always deficits in memory, language, orientation, judgment, or abstraction.
- ★ May be static or variably progressive.
- ★ Patient may lack insight into deficits.



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from JAMA 258(23):3411-3416; 1987

Delirium	Dementia
<i>Clouding of consciousness</i>	Loss of memory/intellectual ability
<i>Acute onset</i>	<i>Insidious onset</i>
Lasts 3 days to 2 weeks	Lasts months to years
Orientation impaired	Orientation often impaired
Immediate/recent memory impaired	Recent and remote memory impaired
Visual hallucinations common	Hallucinations less common
Symptoms fluctuate, often worse at night	Symptoms stable throughout day
Usually reversible	15% reversible
Awareness reduced	Awareness clear
EEG changes (fast waves or generalized slowing)	No EEG changes

Common Dementias & Their Relative Frequencies

Alzheimer's Dementia	50%
Vascular Dementia	10-15%
Alcoholic Dementia	5-10%
Pseudodementia	7%
NPH Dementia	6%
Intracranial Tumors	5%
Chronic Drug Intoxication	3%
Huntington's Chorea	3%
Other	7-10%
Undiagnosed	3%



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from Wells (ed): Dementia NY, Davis, 1977

Dementia Cortical vs Subcortical

Features	Cortical	Subcortical
Appearance	alert, healthy	disheveled, 'odd', ill
Motor activity	normal	slow
Posture	erect	stooped, twisted
Gait	normal or pacing	ataxic, festinating
Movements	normal	tremor, chorea, dystonia
Language	anomia, paraphasia	normal
Cadence	normal	dysarthric, hypophonic
Cognition	↓ use of facts	'dilapidated'
Memory	↓ register/learn	↓ retrieval (forgetful)
Visuospatial	↓ construction	sloppy (motor problem)
Emotions	unaware/concerned	apathetic, amotivated



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adapted from Beck, et al, Ann Intern Med 97:231; 1982

Dementia - Subtypes

Cortical Dementia

Alzheimer's Disease
Pick's Disease

Subcortical Dementia

Parkinson's Disease
Wilson's Disease
Huntington's Disease
AIDS Dementia Complex

Mixed Dementia

Vascular Dementia
Infectious Dementias



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Probable Alzheimer's Dementia Diagnostic Criteria

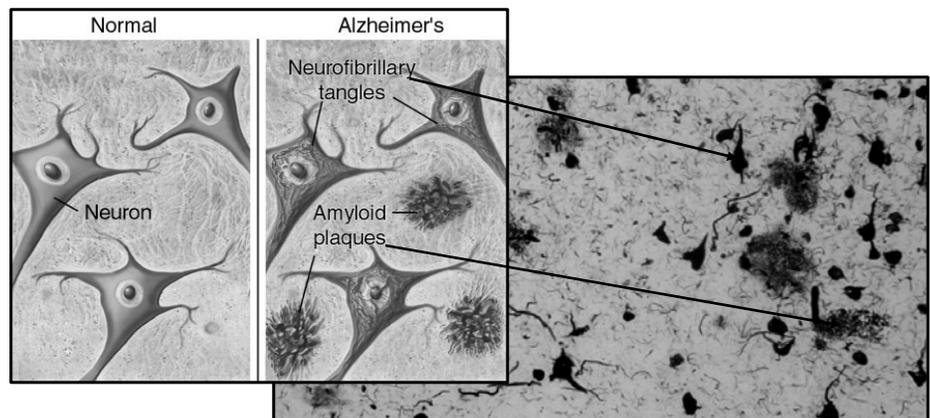
- ★ Dementia established by clinical examination & confirmed by neuropsychological testing
- ★ Deficits in 2 or more areas of cognition
- ★ Progressive worsening of memory & other cognitive functions
- ★ No disturbance of consciousness
- ★ Onset between ages 40 & 90 y/o
- ★ Absence of systemic or other brain diseases capable of producing a dementia syndrome



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Alzheimer's Dementia Pathological Diagnosis

Histopathological confirmation: neuritic plaques & neurofibrillary tangles in neocortex & hippocampus



Alzheimer's Dementia Clinical Course

★ Early Phase (1-3 years):

- Insidious onset.
- Short-term memory goes first, remote memory later.
- Behavior Changes: becomes disoriented in unfamiliar settings, forgets obligations, uses poor judgment, repetitious in conversations, etc.



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Alzheimer's Dementia Clinical Course

★ Middle Phase (2-10 years):

- Fluent aphasia, dysnomia
- Apraxia
- Apathy, paranoia, self-centered, dependent, labile

★ Late Phase (8-12 years):

- Pacing, disturbed sleep-wake cycle, unable to do ADLs, motor deficits, rigidity, bradykinesia



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Alzheimer's Dementia Prevalence

- ★ 4% in those older than age 65
- ★ 20% in those older than age 80
- ★ Evens, et al, 1989:
 - 10.3% (> 65)
 - 47% (> 85)
- ★ 2/3 of dementia due to AD



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Alzheimer's Dementia Pathophysiology

- ★ Pathogenesis Research
 - Genetics - trisomy 21, familial AD
 - Beta-amyloid - protein in neuritic plaques
 - Environmental toxins - aluminum, infection, head trauma implicated but evidence not compelling
- ★ Pathophysiology:
 - ↓ choline acetyl transferase in hippocampus & cortex
 - Damage to nucleus basalis of Meynert



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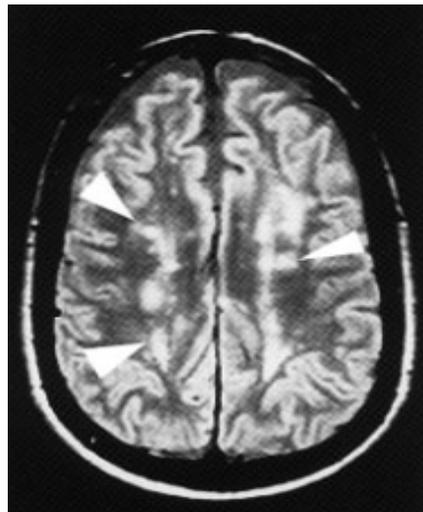
Vascular Dementia

- ★ “Binswanger’s Disease”
- ★ Diagnosis suggested by...
 - Stepwise deteriorating course
 - Patchy deficits early in course
 - Focal neurologic signs & symptoms
 - Evidence from history, physical, or labs of etiologically related cerebrovascular disease
- ★ Periventricular white matter changes on CT or MRI are characteristic but not always indicative of disease



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Classic “Binswanger’s Appearance” Magnetic Resonance Image



T2 axial view without contrast enhancement
Note the areas of increased signal bilaterally, known as periventricular hyperintensity (arrows).

Reversible Dementias

- ★ Depression
- ★ Intoxicants
meds, polypharmacy, alcohol, narcotics, glue, CO, CS2, lead, mercury, manganese
- ★ Infections: any involving brain
- ★ Metabolic disorders
diseases of thyroid, parathyroid, adrenals, pituitary



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from Consensus Conference, JAMA 258:3411-3416; 1987

Reversible Dementias 2

- ★ Nutritional disorders
thiamine deficiency, pernicious anemia (B12 deficiency), folate deficiency, pellagra (niacin deficiency)
- ★ Vascular dementias
- ★ Space-occupying lesions
- ★ Normal pressure hydrocephalus



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from Consensus Conference, JAMA 258:3411-3416; 1987

Other Dementias Alcoholic

- ★ True dementia of alcoholism
- ★ Korsakoff's
 - thiamine deficiency
 - partially reversible



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Other Dementias Pick's Disease

- ★ Resembles AD
- ★ Pathology shows Pick's bodies (cytoskeletal elements)
- ★ Frontotemporal degeneration
- ★ Excessive eating - Kluver-Bucy like?



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Other Dementias

Normal Pressure Hydrocephalus

- ★ Reversible by cerebroventricular shunting
- ★ Triad –
 - Dementia
 - Wide-based gait
 - Urinary incontinence
- ★ Ventricular dilatation without increased intracranial pressure



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Dementia

Indications for Neuropsychological Testing

- ★ To obtain a baseline for measuring future change when diagnosis is in doubt
- ★ Measure change before & after treatment
- ★ Suspected early dementia in a bright person
- ★ In cases with ambiguous imaging studies
- ★ To distinguish dementia from depression or delirium
- ★ To inform regarding nature & extent of impairment following focal brain injury



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from Consensus Conference, JAMA 258:3411-3416; 1987

1. Orientation	
What is the date, month, year?	5 points
Where are we (state, city, hospital)?	5 points
2. Registration	
Name three objects and repeat them.	3 points
3. Attention and calculation	
Serial 7s (subtract 7 from 100 and continue subtracting 7 from each answer) or spell "world" backward.	5 points
4. Recall	
Name the three objects above 5 minutes later.	3 points
5. Language	
Name a pen and a clock.	2 points
Say, "No ifs, ands, or buts."	1 point
Three-step command: Take a pencil in your right hand, put in your left hand, then put it on the floor.	3 points
6. Read and obey the following:	
Close your eyes.	1 point
Write a sentence.	1 point
Copy design.	1 point
TOTAL	30 points

Dementia

Behavioral Management

Environment

safe

secure

consistent

compensating



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Dementia

Pharmacological Management

Avoid polypharmacy!

★ Antidepressants:

- empiric trial is often warranted
- start with an SSRI to avoid anticholinergic & hypotensive effects of TCAs



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Dementia

Pharmacological Management

★ Neuroleptics: not a panacea

- high potency drugs (haloperidol) for agitation, psychosis, delirium, & behavioral dyscontrol
- avoid low potency agents (chlorpromazine, thioridazine)

★ Avoid CNS depressants:

- paradoxical disinhibition
- associated with falls



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TABLE 6-5. Clinical features differentiating pseudodementia from dementia

Pseudodementia	Dementia
Short duration	Long duration
Complaints of cognitive loss	Few complaints of cognitive loss
Complaints of cognitive dysfunction usually detailed	Complaints of cognitive dysfunction, usually imprecise
Communications of distress	Often appear unconcerned
Memory gaps for specific periods or events	Memory gaps for specific periods unusual
Attention and concentration usually well preserved	Attention and concentration faulty
"Don't know" answer typical	Near-miss answers frequent
Little effort to perform simple tasks	Patients struggle to perform tasks
Patients highlight failures	Patients delight in trivial accomplishments
Early loss of social skills	Social skills often retained
Mood change pervasive	Affect shallow and labile
History of psychiatric illness common	History of psychiatric illness uncommon

Dementia

Caring for the Caregiver

- ★ Always empathically involve the caregiver in.
 - assessment & treatment planning.
 - encourage discussion of difficult end of life decisions.
- ★ Caregiver characteristics & well-being are best predictors of patient institutionalization.
- ★ Nation-wide Alzheimer's Association Family Support Groups.
- ★ Literature: The 36-Hour Day & other books.



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Delirium	Dementia
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Human Behavior Course 2004

Psychotherapies

Robert J. Ursano, MD
COL, MC, USAF (RET)
Professor & Chair
Department of Psychiatry
Uniformed Services University

HUMAN BEHAVIOR COURSE 2004

PSYCHOTHERAPIES - SLIDES

LEARNING OBJECTIVES AND STUDY QUESTIONS FOR DISCUSSION.

1. Know the meaning of the terms and concepts listed in slide one below.
2. What is psychotherapy? What are its common features?
3. How does psychotherapy “work”? What are the common factors at work in all psychotherapies?
4. How long does it take for someone to feel better during or after psychotherapy?
5. What is the difference between supportive and insight-oriented therapies? What approaches tend to characterize each?
6. Compare and contrast crisis intervention, time-limited psychotherapy, and longer-term psychotherapy.
7. Know the key features of psychoanalytic psychotherapy. What does it change that leads to improvement?
8. Describe the key features of cognitive therapy. What does it change that leads to improvement?
9. Describe the key features of behavioral therapies. What do they change that leads to improvement?

Slide 1

Psychotherapies - Terms & Concepts

- ★ Psychotherapy
- ★ Individual therapy
- ★ Group therapy
- ★ Psychoanalysis
- ★ Psychodynamic therapy
- ★ Supportive therapy
- ★ Interpersonal therapy
- ★ Cognitive therapy
- ★ Behavior therapy
- ★ Conjoint therapy
- ★ Family therapy
- ★ Milieu therapy
- ★ Brief psychotherapy
- ★ Crisis intervention
- ★ Time-limited psychotherapy
- ★ Long-term psychotherapy
- ★ Self-help groups
- ★ Mechanisms of change
- ★ Synaptic plasticity
- ★ Placebo effect
- ★ Active placebo
- ★ Specific curative factors
- ★ Nonspecific curative factors
- ★ Assessment criteria
- ★ Selection criteria
- ★ Psychodynamic formulation
- ★ Defense mechanisms
- ★ Focal conflict
- ★ Neurosis
- ★ Therapeutic alliance
- ★ Compliance or adherence
- ★ Narrative
- ★ Assumptive world
- ★ Inner representation



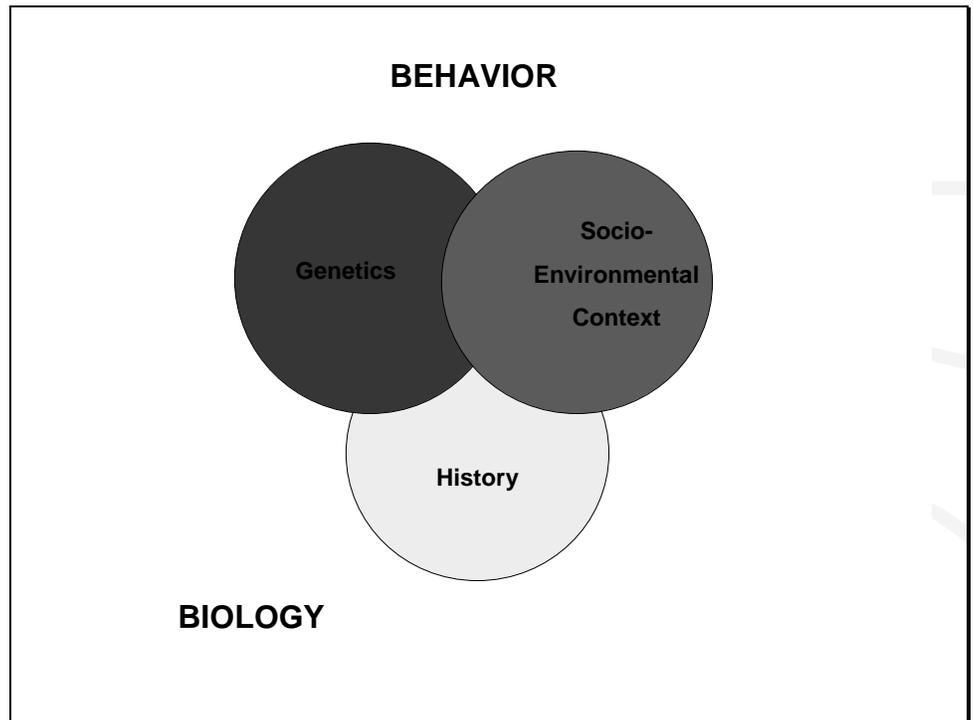
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Psychotherapies - Terms & Concepts 2

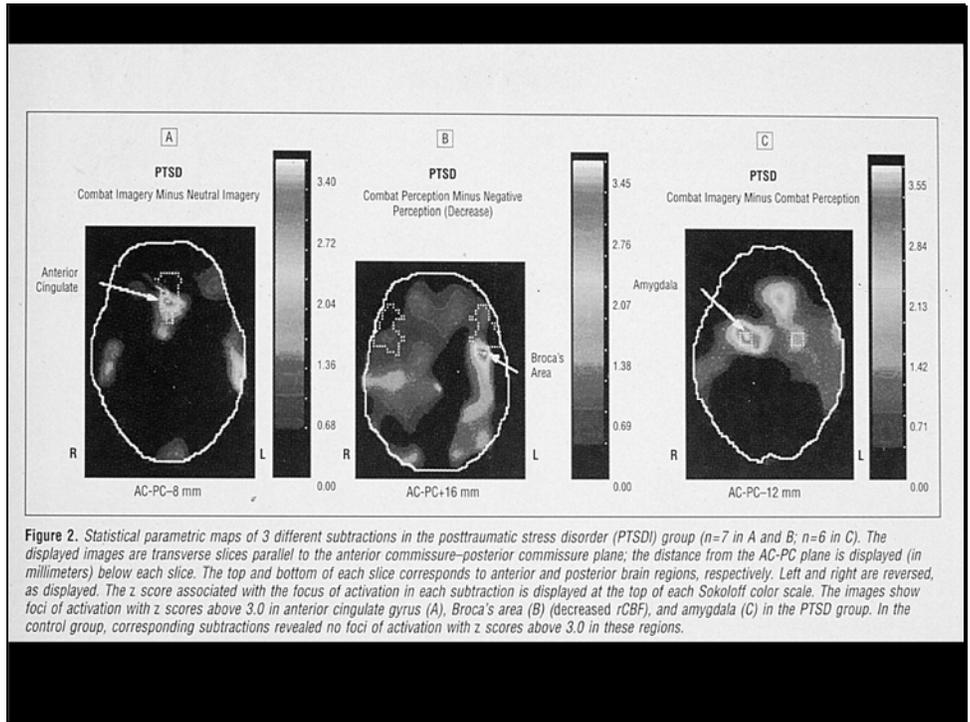
- ★ Transference
- ★ Countertransference
- ★ Concordant countertransference
- ★ Complementary countertransference
- ★ Free association
- ★ Neutrality
- ★ Abstinence
- ★ Self-disclosure
- ★ Interpretation
- ★ Confrontation
- ★ Clarification
- ★ Encouragement to elaborate
- ★ Empathic validation
- ★ Advice and praise
- ★ Affirmation
- ★ Object relations
- ★ Cognitive schema



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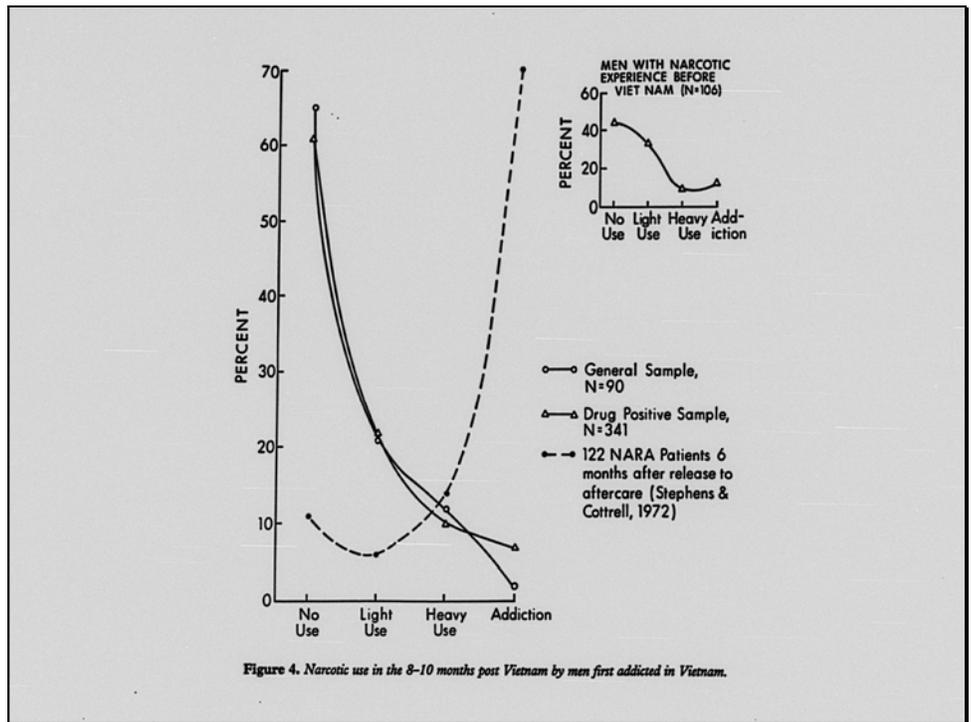


Slide 4



Slide 5

	Short Term	Long Term
BIO		
PSYCH		
SOC/CULT		

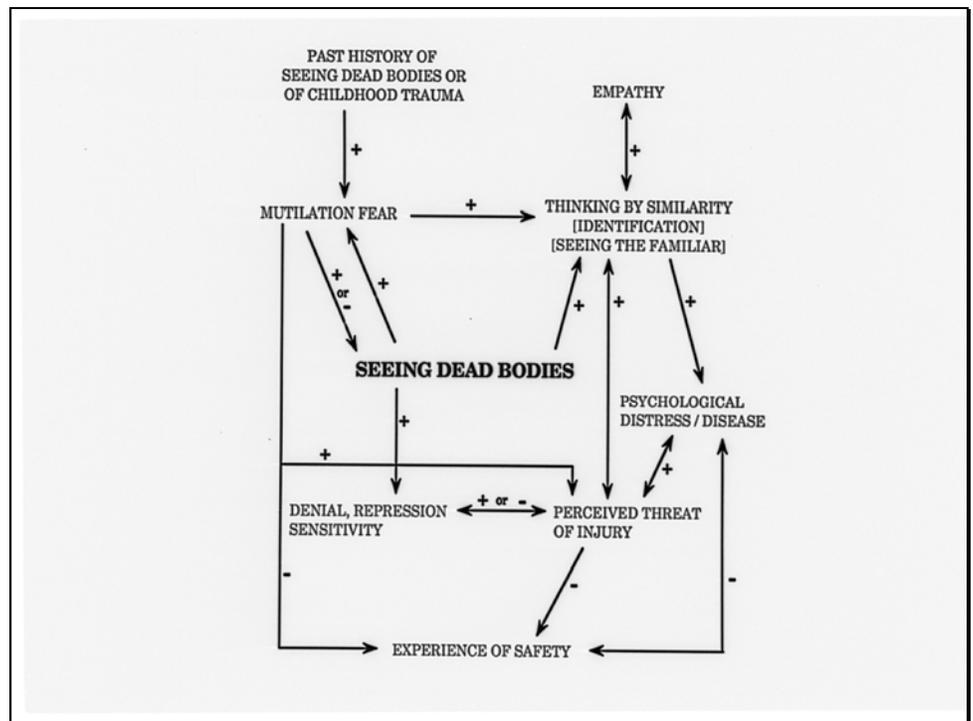


Psychotherapy

1. Verbal
2. Two- Group
3. Voluntarily Integrated
4. One person has been labeled the expert and the other the help seeker
5. Expectation of help
6. For the purpose of elucidating characteristic patterns of living which are particularly troublesome

Non-Specific Curative Factors:

1. Intense confiding relationship
2. Expectation of help
3. Abreaction
4. New information
5. A rationale/myth
6. Provision of success experiences



Identifying the Focal Conflict

- Precipitant, early life traumas and repetitive behaviors highlight the focal conflict
- Focal conflict should be active in the patient's life
- Be alert to conflicts about success as well as loss
- Look for areas of inhibition
- Choose one focal conflict related to one transference figure
- Trial interpretation of the focal conflict often elicits an affective response

Psychotherapy

1. Psychoanalysis
2. Psychodynamic Psychotherapy
3. Supportive Psychotherapy
- (4. Interpersonal Psychotherapy)
- (5. Cognitive Psychotherapy)

Psychoanalysis

GOAL: Elucidation and resolution of the childhood neurosis as it presents itself in the transference neurosis.

Psychoanalysis (Continued)

Techniques:

Free Association

Couch

Interpretation

Frequency of Meeting 4-5X/Week

Neutrality

Abstinence

Medications - No

Duration : 3-5 years

Countertransference

Complementary	The therapist experiences and empathizes with the feelings of <u>an important person from the patient's life</u>
Concordant	The therapist experiences and empathizes with <u>the patient's emotional position</u>

PROCESSING THE COUNTERTRANSFERENCE

- Be alert to ones own developmental and life issues
- Do not take the patient's feelings about you personally
- Do not enact the countertransference
- Use the countertransference to help form interpretations
- Use countertransference anger to understand the patient's hostility
- Examine one's emotional reactions for clues to the patient's dynamics
- With borderline patients, diagnose split apart self and object images by linking transference and countertransference
- Search for the concordant countertransference when experiencing the complementary countertransference

Psychodynamic Psychotherapy

GOAL: More Focal

 Defense Analysis

 More Here and Now

EVALUATION FOR PSYCHODYNAMIC PSYCHOTHERAPY

I. Beginning the Evaluation

- Educate the patient about the evaluation process
- Usually 1 to 4 sessions
- Assessment of life threatening behaviors
- Assessment of organic causes of the patient's illness
- Psychiatric diagnosis
- Therapist uses questioning and listening
- Listen for the patient's fears of starting treatment

Evaluation for Psychodynamic Psychotherapy

II. Psychodynamic Assessment

Listen to and Explore:

Precipitants of illness and of seeking help

Past history

Significant figures in the past

Earliest memory

Recurrent/recent dream

Experience of previous treatments and therapists

Observe how the patient relates to the therapist

Give a trial interpretation

Invite collaboration in understanding

Evaluation for Psychodynamic Psychotherapy

III. Selection Criteria

Patient criteria:

Neurotic level disorders

Psychologically minded

Able to use understanding for relief of symptoms

Patient has a supportive environment

Good patient-therapist match

More seriously disturbed patients require more supportive measures

Psychodynamic Psychotherapy

Focus

The effects of past experience on present behaviors (cognition, affects, fantasies, and actions)

Goal

Understanding the defense mechanisms and transference responses of the patient, particularly as they appear in the doctor-patient relationship

Technique

Therapeutic alliance
Free association
Defense and transference interpretation
Frequent meetings
Duration of treatment: months to years

Psychodynamic Psychotherapy (Continued)

Techniques:

FACE TO FACE

Interpretation

Confrontation

+/- MEDS

Transference

Benign Neglect

Frequency - 2-3X/Week

Duration - 6 months to _ Years

Slide 22

Repression	Isolation of Affect
Denial	Regression
Reaction Formation	Sublimation
Displacement	Splitting
Reversal	Projection
Inhibition	Projective Identification
Identification with the Aggressor	Omnipotence
Asceticism	Devaluing
Intellectualization	Primitive Idealization

Slide 23

PSYCHODYNAMIC PSYCHOTHERAPY (CONTINUED)	
Diagnoses:	“Neuroses”
	Personality Disorders
	Borderline Condition
	Schizophrenia, M-D Disorder
	Adjustment Disorder
	PTSD

Supportive Psychotherapy: Goals, Selection and Duration

Goal
Maintain or reestablish usual level of functioning

Selection
Very healthy with severe stressor
Severely or chronically ill with ego deficits
Able to recognize safety and develop trust

Duration
Days to years

Supportive Psychotherapy (continued)

Techniques:

- Face to face
- Interpretation - No
- Do not ignore transference
- ++ Medications
- Support effective defenses
- Allow idealization/powerful other
- Frequency: 3-4x/week to 1x3 months
- Duration: weeks to years

Use of Interpretation in Supportive Psychotherapy:

- Use interpretation sparingly
- Prepare the patient
- Provide reassurance at the same time as interpretation
- Give the patient room to reject the interpretation
- Provide the patient aid in working through

Supportive Psychotherapy (continued)

Diagnoses: Psychoses
 Brief Anxiety Reactions
 Adjustment Disorder (Non-Recurrent)

General Guidelines

- In a medical emergency “Do what must be done”
- Both action and inaction require exploration
- Operate as a concerned physician
- Foster autonomy and independence
- Create a setting of safety to allow for exploration

Common Practical Problems

- Office Décor and Setting
- Fees
- Medical Insurance
- Telephone Calls
- Vacations
- Suicidal Patients
- Dangerous Patients
- Gifts
- Advice Giving
- Illness in the Patient
- Therapist Errors

Psychoanalysis (Continued)

Diagnoses: "Neuroses" - Oedipal Level Conflict
Requiring an Ability to form a therapeutic alliance, observe
feeling states.

"Character Neuroses"

Hysteria, Obs-comp, anxiety, depressive (chronic) disorders

**Human Behavior Course
2004**

Schizophrenia & Psychosis One & Two

E. Fuller Torrey, MD

Frederick J. Frese, PhD



Frederick J. Frese, III, PhD

For 15 years until his retirement in 1995, Fred Frese served as Director of Psychology at Western Reserve Psychiatric Hospital, a state-operated facility in the Cleveland-Akron area. A member of the National Alliance for the Mentally Ill (NAMI) since 1989, Dr. Frese is currently the First Vice President of its National Board. He currently serves on the Board of the Summit County Alliance for the Mentally Ill.

Dr. Frese has given more than 300 presentations on topics related to serious mental illness in 30 states, Canada, Puerto Rico, and Washington, D.C. He has published extensively, and has been on the advisory reviewing boards of five professional journals, including Schizophrenia Bulletin. Along with his wife, Penny, he has also co-produced a widely distributed training

video about coping with schizophrenia.

Dr. Frese has been a faculty member at Case Western Reserve University, Kent State, Ohio University, and Ashland Theological Seminary. He has also served as Chairperson of the Akron Area Mental Health Board. Dr. Frese was the founder and first president of Community and State Hospital Psychologists, the American Psychological Association's division for psychologists serving persons with serious mental illness. He also was on the Board of Trustees of the Ohio Psychological Association, where he served as Chair of the committee for the Mentally Ill Homeless. Additionally, he served as president of the National Mental Health Consumers' Association.

Dr. Frese served as a consultant to the Department of Veterans Affairs on a project to improve clinical practice. He has testified before congressional committees on priorities for public mental health services and is a part of the American Psychological Association Task Force for the Seriously Mentally Ill/Seriously Emotionally Disturbed.

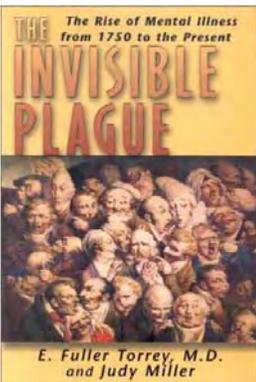
E. Fuller Torrey, MD

Dr. Torrey is an internationally respected expert, clinician, and scientist specializing in schizophrenia and bipolar disorder. He is the Executive Director of the Stanley Foundation Research Programs, which supports research on schizophrenia and bipolar disorder. From 1976 to 1985, Dr. Torrey was on the clinical staff at St. Elizabeths Hospital, specializing in the treatment of severe psychiatric disorders. From 1988 to 1992, he directed a study of identical twins with schizophrenia and bipolar disorder. His research

has explored viruses as a possible cause of these disorders, and he has carried out research in Ireland and Papua New Guinea. Dr. Torrey was educated at Princeton University (BA, Magna Cum Laude), McGill University (MD), and Stanford University (MA in Anthropology). He trained in psychiatry at Stanford University School of Medicine. He practiced general medicine in Ethiopia for two years as a Peace Corps physician, in the South Bronx in an OEO health center, and in Alaska in the Indian Health Service. From 1970 to 1975, he was a special assistant to the Director of the National Institute of Mental Health.

Dr. Torrey is the author of 17 books and more than 200 lay and professional papers. Some of his books have been translated into Japanese, Russian, Italian, and Polish. His most recent book is "The Invisible Plague: The Rise of Mental Illness from

1750 to the Present", a book he has just recently published with Judy Miller. Dr. Torrey has appeared on national television (e.g., Donahue, Oprah, 20/20, 60 Minutes, and Dateline) and has written for many newspapers. He received two Commendation Medals from the US Public Health Service, a 1984 Special Families Award from the National Alliance for the Mentally Ill (NAMI), a 1991 National Caring Award, and in 1999 received research wards from the International Congress of Schizophrenia and from NARSAD.



HUMAN BEHAVIOR COURSE 2004
SCHIZOPHRENIA & PSYCHOSIS ONE & TWO - HO & SLIDES

LEARNING OBJECTIVES AND STUDY QUESTIONS FOR DISCUSSION.

1. Know the meaning of the terms and concepts listed in slides one to three below.
2. Define psychosis and know what the cardinal signs & symptoms are. Can psychosis occur without hallucinations?
3. What is a hallucination?
4. What is a delusion?
5. What defense mechanisms are most frequently used in psychosis?
6. Name the different psychotic disorders and whether they are very common (point prevalence > 5%), common (1-5%) or uncommon (<1%) in the general population.
7. Know whether each psychotic disorder is more common in men, more common in women, or occurs in a similar proportion of men and women.
8. What are the diagnostic features of schizophrenia?
9. What is the difference between psychosis and schizophrenia?
10. What are the subtypes of schizophrenia and the hallmarks of each?
11. What is the prognosis of schizophrenia? What features predict a relatively good prognosis? What features predict a relatively poor prognosis?
12. What are the most consistent neuropathological findings associated with schizophrenia?
13. Describe what is known about the psychosocial pathogenesis of schizophrenia and related disorders.
14. What evidence is there that glutamate plays a role in psychosis/schizophrenia?
15. What evidence is there that serotonin plays a role in psychosis/schizophrenia?
16. What neuroanatomic pathways are thought to mediate psychosis/schizophrenia?
17. What are the differences between the various psychotic disorders and schizoid personality disorder? Schizotypal personality disorder? Paranoid personality disorder?
18. What are the diagnostic features of schizoaffective disorder?
19. What are the subtypes of schizoaffective disorder and the hallmarks of each?
20. What are the diagnostic features of delusional disorder?
21. What is the difference between a delusion and delusional disorder?
22. What are the subtypes of delusional disorder and the hallmarks of each?
23. What are the diagnostic features of shared psychotic disorder?

Psychosis & Schizophrenia One & Two – Terms & Concepts

- ★ schizophrenia
- ★ schizophrenia, paranoid type
- ★ schizophrenia, disorganized type
- ★ schizophrenia, undifferentiated type
- ★ schizophrenia, residual type
- ★ schizophrenia, catatonic type
- ★ schizophreniform disorder
- ★ brief psychotic disorder
- ★ schizoaffective disorder
- ★ schizoaffective disorder, bipolar type
- ★ schizoaffective disorder, depressive type
- ★ psychotic disorder due to general medical condition
- ★ delusional disorder
- ★ delusional disorder, erotomanic type
- ★ delusional disorder, grandiose type
- ★ delusional disorder, jealous type
- ★ delusional disorder, persecutory type
- ★ delusional disorder, somatic type
- ★ shared psychotic disorder
- ★ *folie a deux*
- ★ substance-induced psychotic disorder
- ★ first-rank symptoms
- ★ Schneiderian symptoms
- ★ thought echo
- ★ voices commenting



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Psychosis & Schizophrenia One & Two – Terms & Concepts

- ★ voices arguing
- ★ thought insertion
- ★ thought withdrawal
- ★ thought broadcasting
- ★ somatic passivity
- ★ delusion (delusional)
- ★ psychosis (psychotic)
- ★ Bleuler's four 'A's
- ★ deficit (negative) symptoms
- ★ psychoticism
- ★ disorganization
- ★ depressive symptoms
- ★ positive symptoms
- ★ hallucinations
- ★ schizophrenia spectrum disorders
- ★ schizoid personality disorder
- ★ schizotypal personality disorder
- ★ projection
- ★ psychotic defenses
- ★ neurotic defenses
- ★ catatonic behavior
- ★ psychotic factor
- ★ disorganized factor
- ★ negative factor
- ★ prodromal phase
- ★ active phase
- ★ residual phase
- ★ postpsychotic depression
- ★ relapse
- ★ schizotaxia
- ★ stress diathesis model of schizophrenia



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Psychosis & Schizophrenia One & Two – Terms & Concepts

- ★ downward drift hypothesis
- ★ expressed emotion
- ★ social skills training
- ★ intensive insight-oriented therapy
- ★ supportive psychotherapy
- ★ vocational rehabilitation
- ★ day treatment programs
- ★ dopamine theory of schizophrenia
- ★ nigrostriatal tract
- ★ ventral tegmental area
- ★ mesolimbic tract
- ★ mesocortical tract
- ★ tuberoinfundibular tract
- ★ glutamate
- ★ phencyclidine (PCP)
- ★ serotonin
- ★ lysergic acid diethylamide (LSD)
- ★ nonbizarre delusion
- ★ Othello syndrome
- ★ delusions of infestation
- ★ dysmorphophobia
- ★ olfactory reference syndrome
- ★ body dysmorphic disorder



Uniformed Services University

An Introduction to Schizophrenia

**USUHS
March 31, 2004**

**E. Fuller Torrey, M.D.,
Dept. of Psychiatry,
USUHS**

**Frederick J. Frese, Ph.D.
Guest Lecturer**

**Recommended reading for those who want more
information:**

- 1. Torrey, E. Fuller, *Surviving Schizophrenia*, 4th ed.
(New York: HarperCollins, 2001)**
- 2. Torrey, E. Fuller, and Knable, Michael B.,
Surviving Manic Depression (New York: Basic
Books, 2002)**

1. The Importance of Research on Schizophrenia, Bipolar Disorder and Related Psychotic Disorders for the Military

Schizophrenia, bipolar disorder and related psychotic disorders are among the most important psychiatric disorders for the U.S. military. The onset of these disorders is usually between ages 16 to 30, and is thus the same age range as the majority of active duty military personnel. Initial psychotic breaks occur commonly in military settings and can be very disruptive to military operations.

Moreover, these disorders are extremely costly for the military. According to a 1991 survey, veterans with schizophrenia and bipolar disorder utilize approximately two-thirds of the VA mental health budget (1), in large measure because most individuals affected require hospitalization and ongoing services. In addition to the psychiatric services required, according to a 1993 study there were 99,455 veterans with schizophrenia and 15,743 veterans with bipolar and other psychotic disorders who were receiving service-connected disability benefits at that time. These two diagnoses comprised 33 percent (115,198/346,851) of all veterans receiving service-connected disability benefits but 71 percent of all veterans receiving 100 percent benefits (2). It was estimated at that time that the total annual VA service-connected disability payments to individuals with schizophrenia, bipolar disorder and related psychoses was approximately \$1.8 billion (3)

2. Dimensions of Schizophrenia

- Approx 2.2 million Americans are affected in any given year (8 per 1,000)
- At least 40 percent are not receiving treatment (approx 900,000)
- At least as many on streets, in shelters as in all hospitals and related facilities
- More in jails, state prisons than in all hospitals and related facilities
- Increasing episodes of violence by those not being treated (single biggest cause of stigma)
- Increasing victimization: robberies, assaults, rapes, murders
- Public services (psychiatric, housing, rehab) often grossly inadequate
- Total direct, indirect costs (U.S., 2000): \$40 billion
- \$10 billion spent on federal disability payments (SSI & SSDI)

3. Clinical Aspects

- Onset peaks ages 16-30
- Males earlier and more severe
- Major symptoms include:
 - Alterations of the senses
 - Inability to sort, interpret incoming sensations and respond appropriately
 - Delusions and hallucinations

- Altered sense of self
- Changes in emotions
- Changes in movements
- Changes in behavior
- Decreased awareness of illness

4. Risk Factors

- Genes (predisposing)
- Winter/spring births
- Urban birth/rearing
- Migration
- Cat ownership in childhood
- Perinatal complications

5. Brain Abnormalities (See ref. 4)

- Structural, e.g. increased ventricular size
- Neurological abnormalities: dyskinesias, Parkinsonian, soft signs, decreased pain perception
- Neuropsychological abnormalities: memory, attention, executive function
- Electrophysiological abnormalities: EEG
- Cerebral metabolic abnormalities: PET, SPECT, fMRI

6. Theories of Causation

- Genetic
- Neurochemical
- Infectious
- Developmental

References

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3. Testimony of E. Fuller Torrey, M.D. before the House Committee on Appropriations, Subcommittee on VA, HUD and Independent Agencies, May 6, 1993.
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DIAGNOSIS & FORMULATION II

Gender-Related Issues

SMALL GROUP DISCUSSION TWO

LEARNING OBJECTIVES.

1. Know what mental disorders are most common among women and which are most common among men.
2. Describe how gender may impact assessment (history, physical, and lab testing) and pharmacological management.
3. List unique psychosocial issues or mental disorders specific to women.

HUMAN BEHAVIOR COURSE 2004
VIGNETTE 2:1 - "WORTHLESS WIFE"

Chief Complaint: Staff Sergeant (SSG) C is a 33-year-old woman with 12 years in the Army as records technician and the married mother of a 4-year-old son, Robert. SSG C's husband Mr. C is a local civilian accountant. SSG C is seeing you on a Community Mental Health Activity referral (you are a practicing general psychiatrist there) from her family practitioner. The reason for referral is SSG C's complaint that she has been depressed and unable to concentrate ever since she separated from her husband 3 months previously.

History of the Present Illness: SSG C left her husband after a 5-year marriage. SSG C said that violent arguments between them during which Mr. C beat SSG C had occurred for the last 4 years of their marriage, beginning when she became pregnant with Robert. There were daily arguments during which Mr. C hit her hard enough to leave bruises on her face and arms. During their final argument (about SSG C's buying an expensive tricycle for Robert), Mr. C held a loaded gun to Robert's head and threatened to shoot him if she didn't agree to return the tricycle to the store. SSG C didn't tell her unit of this and instead obtained a court order of protection that prevented Mr. C from having any contact with their son. She took Robert to her parents' apartment, where SSG C and Robert are still living.

In the 3 months since she left Mr. C, SSG C has become increasingly depressed. Her appetite has been poor and she has lost 10 pounds. She cries a lot and often wakes up at 5:00 A.M. and is unable to get back to sleep. She says that her only pleasure is in being with her son. She is able to take care of him physically, but feels guilty because her preoccupation with her own bad feelings prevents her from being able to play with him. She now has no social contacts other than with her parents, her son, and acquaintances in her the office she currently supports. She feels worthless and blames herself for her marital problems, saying that if she had been a better wife, maybe Mr. C would have been able to give up the cocaine. When you ask why she has stayed with him so long, she tells you that her family disapproves of divorce and kept encouraging her to try harder to make the marriage successful. She says she thinks a lot about what her life might be like trying to continue in the Army while taking care of Robert alone. She worries that she can't do it, especially at a duty station more remote from her now convenient family resources, an occurrence she expects to happen in the next two years. Her concerns about her Army career have also prevented her from telling anyone in her unit of her troubles and from seeking military mental health assistance.

Ever since SSG C left Mr. C, he has been calling her at her parents' home and begging her to return to him. A week ago, SSG C's parents took her to their civilian family practitioner. Her physical examination was normal, and the civilian doctor encouraged her strongly to seek military mental health care. Amazingly, SSG C has continued to function on the job, though she has been forced to take nearly two weeks of sick leave since she left Mr. C, telling her supervisor and others that she had developed a chest infection that she couldn't seem to throw.

Past Psychiatric History: SSG C has no history of depression.

Family Psychiatric History: SSG C has no family history of violence, mental illness, or substance abuse. SSG C's parents have been happily married for over 35 years.

Social & Developmental History: SSG C was raised an only child and graduated from high school and secretarial-school before joining the Army at age 20. She earned excellent evaluations for the 6 years of service before her marriage and for the first 2 years until Robert's birth. Before her marriage SSG C had been fairly independent but was very close to her parents, visiting them as regularly as her station would allow and speaking to them by phone a couple of times a week when it didn't. SSG C had many friends back then whom she saw regularly. She still stayed in touch with several close high school friends. In high school she had been popular, an excellent athlete, and a good student. In the Army she has always been well liked and is typically involved in organizing unit or office holiday parties and coordinating money collections for farewell and birthday gifts.

SSG C met Mr. C at a party in the office where he worked as an accountant with a friend of SSG C's. The two married after a 3-month courtship during which SSG C observed Mr. C using cocaine twice at parties. When she expressed concern, he reassured her that he was only "trying it to be sociable," and denied any regular use. Mr. C, a college graduate, is the oldest of three siblings. His father drank a pint of bourbon each night and often beat Mr. C's mother. Mr. C's two younger brothers both have histories of substance abuse.

During their first year of marriage, Mr. C became increasingly irritable and critical of SSG C. He began to request that SSG C stop calling and seeing her friends after work, and refused to allow them or his in-laws to visit their apartment. SSG C convinced Mr. C to try marital therapy, but he refused to continue after the initial two sessions.

Despite her misgiving about Mr. C's behavior toward her, SSG C decided to become pregnant. During the seventh month of the pregnancy, she developed thrombophlebitis and had to stay home in bed, Mr. C began complaining that their apartment was not clean enough and that SSG C was not able to shop for groceries. He never helped SSG C with the housework. He refused to allow his mother-in-law to come to the apartment to help. One morning when he couldn't find a clean shirt, he became angry and yelled at SSG C. When she suggested that he pick some up from the laundry, he began hitting her with his fists. She left him and went to live with her parents for a week. He expressed remorse for hitting her and agreed to resume marital therapy.

At her parents' and Mr. C's urging, SSG C returned to her apartment. No further violence occurred until after Robert's birth. At that time, Mr. C began using cocaine every weekend and often became violent when he was high.

Mental Status Examination: You note that SSG C is pale and thin, dressed in worn-out jeans and dark blue sweater. Her haircut is unstylish, and she appears older than she is. She speaks slowly, describing her depressed mood and lack of energy. She makes frequent eye contact with you but looks fatigued, worried, and demoralized. She denies any suicidal ideas and there is no evidence of hallucinations or delusions. You find her to be alert and fully oriented with a couple of near misses when calculating serial sevens to 65. Otherwise cognitive testing is intact. Her judgment seems okay, and she shows generally appropriate insight to her circumstances though she remains quite concerned and insistent about keeping her family issues from impacting her job performance.

HUMAN BEHAVIOR COURSE 2004
VIGNETTE 2:1 DISCUSSION QUESTIONS

1. Now that you have the history, review it for any:
 - A. Biological, psychological, and social predisposing factors?

 - B. Biological, psychological, and social precipitating factors?

 - C. Biological, psychological, and social perpetuating factors?

2. What is the patient's DSM-IV multiaxial diagnosis/diagnoses? Why?

3. Devise a biopsychosocial management plan for this SSG C.
 - A. Biological management?

 - B. Psychological management?

 - C. Social management?

4. What do you think the prognosis is for SSG C? At your urging, she shares her family problems with her supervisor, and the supervisor has called you and left a message for you to call back. What will you say to the supervisor?

5. What information and/or recommendations are appropriate to relate to SSG C's referring primary care physician?

VIGNETTE 2:2 - "FEELING LIKE SLIME"

Chief Complaint: Ms. D is a 26 year-old woman married to an Air Force non-commissioned officer. She has a lengthy history starting in her early teens of many physical complaints for which no clear etiology could be found and describes chronic depression and anxiety with a noteworthy increase in symptoms since she was married 3 months ago.

History of the Present Illness: Ms. D's family doctor made the referral to you after attempting unsuccessfully to treat her with medication. He noted that she was exquisitely sensitive to various medications (e.g., she would go into a daylong sleep after taking 5 mg of an antianxiety medication, diazepam; she would develop severe side effects on 25 mg of an antidepressant, amitriptyline.) Ms. D has a history of chronic suicidal ideas and frequent self-mutilation, often using a razor blade on her breasts and thighs, claiming it helps her "feel like myself" and restores for a personal sense of calm after an upsetting experience.

Until Ms. D was married 3 months ago, she lived with her parents and brother, feeling then that she needed to stay around to minimize the constant threat of family violence. Since getting married, she found herself unable to sleep much and what little sleep she gets is filled with terrifying nightmares with violent themes that involve her family and her new husband. Ms. D and her husband TSgt D were sleeping in separate beds and rooms and were yet to have sexual intercourse together, a situation that Ms. D said her husband was tolerating with remarkable patience though she feared this was unlikely to "last forever".

Past Psychiatric History: Two years ago, she was raped in her apartment. After the rape, she moved back home, forfeiting 2 months' security deposit. Since then, Ms. D had seen a psychotherapist for weekly supportive sessions. She had stayed in the therapy and made some gains, eventually moving out of her family's home and into an apartment of her own and then meeting, dating, and marrying TSgt D, the first man Ms. D had ever dated more than a couple of times. She has no history of psychiatric hospitalization or overt suicide attempts.

Family Psychiatric History: Ms. D's father is an alcoholic who had a history of criminal activities, having served 2 years in prison once in Ms. D's early childhood.

Social & Developmental History: Ms. D gradually reveals a history of chronic family violence and incest. Her father was only occasionally employed, often in illegal activities. He had recurrent alcoholic binges, and used to beat up his two sons regularly, to the point that they both had been hospitalized with broken bones. Ms. D remembered first having sex with her father at age 8, when she and her father and two brothers were snowed in while her mother was in the hospital. She was terrified by her father's breaking open a locked door and forcing her to have intercourse with him, but also remembers feeling that she now had become "special" to her father. These episodes of sexual abuse continued until she moved out of the house to go to college when she was age 18. She recalled her relationship with her father with much self-loathing, convinced for many years that she was to blame for the incest, a sense that left her feeling like "slime" and "a bag of shit".

Throughout her childhood, Ms. D's mother was often ill and Ms. D took care of many of the routine household duties. She always suspected that her mother was aware of the incestuous relationship. She did not remember much of her childhood, and described episodes of "spacing out" during which she found herself in places without knowing how she got there.

Despite the fact that Ms. D had a lot of attention from men, she avoided dating almost entirely until she met TSgt D. She felt terrified when a man showed any interest in her, and even with TSgt D, the two only attended church together. After a year, TSgt D asked her to marry him and she accepted. To this day, their relationship was void of any activities even remotely sexual in nature. Any sexual feelings appeared to be associated in her mind with thoughts of violence. Probably her greatest source of shame was the fact that she was sexually aroused by thoughts of sexual violence, and she had not shared this with TSgt D.

Ms. D's occupational performance has been and continues to be exemplary. She is a paralegal assistant, and she is generally assigned the most complex cases and often stays late doing library research. She also volunteers as a fund-raiser for a charitable organization on weekends. Even though she seems to possess adequate social skills, she has no real friends and no social life beyond TSgt D and four stray cats and two dogs she adopted as her family. She has always feared that people might find out what a despicable person she was. The presence of her animals, she claimed, help her deal with her frequent nightmares about being sexually assaulted.

Recently she has become Big Sister to an abused 10-year-old girl, and has social contacts with cousins. In dealings with her family, she continues to feel that she has no rights and is financially exploited by them. She avoids all contacts with sexual implications including with TSgt D. She still has no sense of having a meaningful future that she can influence. She has had three minor fender-benders during the past year, the result of "spacing out" while driving.

Past Medical History: Ms. D's medical record reflects the following diagnoses - irritable bowel syndrome, chronic pelvic pain, endometriosis, chronic abdominal pain, and chronic insomnia. She has had multiple invasive diagnostic procedures and laboratory and radiographic tests to investigate her physical symptoms.

Medications: She has been prescribed many different medications for her physical symptoms but has tolerated nearly all of them poorly and takes none of them regularly.

Allergies: Ms. D says she is allergic to "all the trees, all the grasses, all the weeds, all perfumes and colognes, cigarette smoke, and all animals except dogs." She describes sensitivities to multiple foods and provides an extensive list of medicines that she cannot tolerate. On closer questioning, there is little evidence that she has ever developed a classic allergic reaction to anything (hives, itching, swelling, wheezing, etc).

Mental Status Examination: Ms. D is a relatively plain looking woman who wears no make-up and usually dresses in loosely fitting overalls and a drab brown leather jacket. She appears her stated age. At first Ms. D is very guarded about seeing you, but over the course of several visits you find her to be very reliable and you are able to establish a constructive rapport with her. She makes only brief intermittent eye contact. She seems to check your expressions vigilantly, especially when she is talking about her violent past or her relationship with TSgt D, as though preparing for some show of emotion on your part. Once she seemed to startle when you halted her stream of speech with an observation. Mood seems chronically depressed with a flat, almost resigned, affect when discussing her past abuse. You've seen her smile but she doesn't smile often or for long. At times she seems "a million miles away" and occasionally loses her train of thought, though generally her thought processes are linear and goal directed. Thought contents are significant for chronic suicidal ideas without plan or intent. She describes periods of intense thoughts of self-mutilation with episodes of cutting occurring about monthly. Her major concern seems to be getting restful sleep and the fear of driving her husband away. She is alert and fully oriented with no significant cognitive deficits on careful screening.

HUMAN BEHAVIOR COURSE 2004
VIGNETTE 2:2 DISCUSSION QUESTIONS

1. Review and describe Ms. D's history of:
 - A. Biological, psychological, and social predisposing factors?

 - B. Biological, psychological, and social precipitating factors?

 - C. Biological, psychological, and social perpetuating factors?

2. What is Ms. D's salient DSM-IV multi-axial diagnosis/diagnoses? Why?

3. Devise a biopsychosocial management plan for this MS. D.
 - A. Biological management?

 - B. Psychological management?

 - C. Social management?

4. What information and/or recommendations are appropriate to relate to Ms. D's referring primary care physician?

Human Behavior Course 2004

Anxiety Disorders One

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HUMAN BEHAVIOR COURSE 2004
ANXIETY DISORDERS ONE - SLIDES

LEARNING OBJECTIVES AND STUDY QUESTIONS FOR DISCUSSION.

1. Know the meaning of the terms and concepts listed in slide one and two below.
2. What are the differences between normal anxiety and the pathological anxiety that characterizes the anxiety disorders?
3. Name the different anxiety disorders and whether they are very common (point prevalence > 5%), common (1-5%) or uncommon (<1%) in the general population.
4. Know whether each anxiety disorder is more common in men, more common in women, or occurs in a similar proportion of men and women.
5. What are the diagnostic features of generalized anxiety disorder?
6. What are the diagnostic features of panic disorder?
7. What is the difference between a panic attack and panic disorder?
8. What is a phobia? Which of the anxiety disorders specifically involve phobias?
9. What are the diagnostic features of agoraphobia? How does it this disorder relate panic disorder?
10. What are the diagnostic features of social phobia? What is the difference between agoraphobia and social phobia?
11. What are the diagnostic features of obsessive-compulsive disorder?
12. Name the different types of anxiety.
13. Describe the key behavioral consequences of anxiety.
14. Describe what is known about the psychosocial pathogenesis of anxiety and the various anxiety disorders.
15. What general type of psychotherapy works best for phobias and phobic disorders? Name some of the techniques used and give an example of how each might be used to treat a phobia.
16. What role does cognitive therapy play in the treatment of anxiety disorders? Given an example of a cognitive therapeutic technique for one of the anxiety disorders.
17. What role do psychodynamic therapies play in the treatment of anxiety disorders?

Terms & Concepts

- ★ Disorder due to GMC
- ★ Substance induced disorder
- ★ Generalized Anxiety disorder
- ★ Panic disorder
- ★ Obsessive-compulsive disorder
- ★ Agoraphobia
- ★ Social phobia
- ★ Specific phobia
- ★ Comorbidity
- ★ Somatization disorder
- ★ Hypochondriasis
- ★ Avoidant personality disorder
- ★ Obsessive-compulsive personality disorder
- ★ Tourette's disorder
- ★ Complex partial seizures
- ★ PANDAS
- ★ Obsessive-compulsive spectrum
- ★ Stress thermostat
- ★ Phobia
- ★ Panic attack
- ★ Worry
- ★ Free-floating
- ★ Obsessions
- ★ Compulsions
- ★ Cued versus uncued
- ★ Autonomic symptoms
- ★ Cognitive symptoms
- ★ Motor symptoms
- ★ Somatic symptoms
- ★ State anxiety



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Terms & Concepts 2

- ★ Trait anxiety
- ★ Anxiety neurosis
- ★ Signal anxiety
- ★ Separation anxiety
- ★ Unconscious wishes
- ★ Displacement
- ★ Isolation
- ★ Undoing
- ★ Reaction formation
- ★ Conditioning
- ★ Unconditioned stimulus
- ★ Unconditioned response
- ★ Conditioned stimulus
- ★ Conditioned response
- ★ Stimulus generalization
- ★ Anticipatory anxiety
- ★ Extinction
- ★ Behavioral inhibition
- ★ Cognitive theory
- ★ Automatic thoughts
- ★ Cognitive distortion
- ★ Attentional biases
- ★ Amygdala
- ★ Nucleus accumbens
- ★ Attention-motivation circuit
- ★ Relaxation training
- ★ Breathing exercises
- ★ Guided imagery
- ★ Graded exposure
- ★ Response prevention
- ★ Cognitive therapy
- ★ Genetic component



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What Is Anxiety?

“Heightened arousal (often with physical symptoms) accompanied by apprehension, fear, obsessions, or the like.”



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Associated Physical (AKA Somatic) Symptoms

e.g., headache, tremor, chest tightness, palpitations, stomach discomfort, nausea, perspiration, and diffuse aches & pains



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TABLE 10-7. Common symptoms reported by patients with panic disorder and agoraphobia

Symptoms	%	Symptoms	%
Fearfulness or worry	96	Restlessness	80
Nervousness	95	Trouble breathing	80
Palpitations	93	Easy fatigability	76
Muscle aching or tension	89	Trouble concentrating	76
Trembling or shaking	89	Irritability	74
Apprehension	83	Trouble sleeping	74
Dizziness or imbalance	82	Chest pain or discomfort	69
Fear of dying or going crazy	81	Numbness or tingling	65
Faintness/light-headedness	80	Tendency to startle	57
Hot or cold sensations	80	Choking or smothering sensations	54

Source. Adapted from Noyes et al. 1987b.

TABLE 10-6. Specialists consulted depending on target symptoms of panic disorder

Specialist	Target symptoms
Pulmonologist	Shortness of breath, hyperventilation, smothering sensations
Dermatologist	Sweating, cold, clammy hands
Cardiologist	Palpitations, chest pain or discomfort
Neurologist	Tingling and numbness, imbalance, dizziness, derealization or depersonalization, tremulousness or jitteriness, light-headedness
Otolaryngologist	Choking sensation, dry mouth
Gynecologist	Hot flashes, sweating
Gastroenterologist	Nausea, diarrhea, abdominal pain or discomfort (i.e., "butterflies")
Urologist	Frequent urination

Anxiety: Adaptation or Illness?

- ★ Universal human experience
- ★ Normal or healthy anxiety is common & often enhances functioning
 - Can focus and energize (e.g., exam preparation)
 - Adaptive avoidance (e.g., dark alleys or other legitimate hazards)
- ★ Pathological anxiety is less common
 - But not uncommon
 - Impairs functioning -- social, occupational, or interpersonal dysfunction



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Pathological Anxiety

- ★ Cardinal symptom of a number of mental disorders -- the anxiety disorders
- ★ Sometimes a "side effect" of
 - Diseases
 - Substances
 - Medications
- ★ Often secondary to other psychiatric disorders (e.g. depression)



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Epidemiology of Anxiety Disorders

- ★ Among most common psychiatric disorders: one in four people meet diagnostic criteria for at least one anxiety disorder during their lifetime.
- ★ Women > men 3:2
- ★ Frequently undiagnosed because patients complain to doctors of associated physical symptoms rather than anxiety per se.



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Theoretical Explanations -Psychosocial-

- ★ Freud: unconscious sexual tension. "Signal" of unconscious conflict.
- ★ Learning theory: anxiety is a conditioned response to environmental stimulus (e.g. physical symptoms experienced during a car accident may re-emerge when riding in a car).
- ★ Cognitive distortion: anxious person overestimates actual risk ('catastrophic thinking'); e.g., person with headache believes it is caused by a brain tumor



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Types of Anxiety Symptoms

- ★ Free-floating - steady tension and worry
- ★ Panic – sudden, intense anxiety
- ★ Phobic – fear of an object or situation
- ★ Obsessions – recurrent, intrusive, and unwanted anxiety producing thoughts



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Disabling Behavioral Manifestations

Avoidance
Compulsions
Obsessive Slowness



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Specific Disorders

- ★ Anxiety disorder due to a general medical condition
- ★ Substance induced anxiety disorders
- ★ Primary anxiety disorders
- ★ Anxiety as a symptom of other psychiatric disorders



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Primary Anxiety Disorders

- ★ Generalized anxiety disorder
- ★ Panic disorder
- ★ Obsessive-compulsive disorder
- ★ Phobias
 - Social phobia
 - Simple phobia
 - Agoraphobia with or without panic
- ★ Post-traumatic stress disorder & acute stress disorder (dealt with elsewhere in the course)



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Generalized Anxiety Disorder

- ★ Excessive worry or anxiety about events or life activities (school, work, relationships)
- ★ Occurs most days over 6 months or longer
- ★ Includes at least three of the following:
 - Feeling restlessness, “keyed up,” or on edge
 - Easy fatigue
 - Poor concentration
 - Irritability
 - Muscle tension or weakness
 - Sleep disturbance



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Generalized Anxiety Disorder 2

- ★ Prevalence – ~ 5% lifetime (very common)
- ★ Women > men ~ 2:1
- ★ Comorbidity common, especially depression
- ★ Prognosis –
 - generally chronic; ~25% recover
 - treatments are relatively effective
- ★ Only a third get treated



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Panic Disorder

- ★ Panic attacks: one or more
 - Symptoms – palpitations, SOB, sweating, dizziness, choking, trembling, chest discomfort, feeling of impending doom
 - Uncued – no identifiable environmental precipitant
- ★ At least a month of worry
- ★ NOT due to disease, substance, or medication
- ★ May occur with or without agoraphobia



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Panic Disorder 2

- ★ Agoraphobia (“fear of the marketplace”)
fear of panic attack or loss of control in a public place or hazardous situation (e.g., driving)
- ★ 1/3 to 1/2 of those with panic disorder will have agoraphobia
- ★ Agoraphobia may rarely occur without panic attacks
- ★ Often causes extremely disabling avoidance behaviors



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Panic Disorder 3

- ★ Prevalence – ~ 1.5 – 3.5% (common)
- ★ Women > men ~ 2-3:1
- ★ Comorbidity common, especially depression
- ★ Increased suicide risk, especially with depression
- ★ Genetic & environmental factors in twin studies
- ★ Prognosis –
 - generally chronic; ~30-40% recover
 - treatments are relatively effective



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Panic Disorder 6 Common Psychotherapies

Avoidance responds best to
behavioral therapies



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Obsessive-Compulsive Disorder

- ★ Obsessions: recurrent intrusive thoughts
 - Contamination fears & excessive doubt are most common
 - Often violent or sexual themes
- ★ Compulsions: repetitive behaviors or rituals
 - Checking & washing are most common
 - Counting
 - Repeating
 - Arranging
 - Hoarding



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Obsessive-Compulsive Disorder 2

- ★ Prevalence – ~ 2 – 3% (common)
- ★ Men slightly more common than women
- ★ Comorbidity common, especially depression. Also tics, Tourette's
- ★ Genetic & environmental factors in twin studies
- ★ Prognosis –
 - generally chronic
 - treatments are relatively effective



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Obsessive-Compulsive Disorder 4 Common Psychotherapies

Exposure with response prevention
70% of participants respond but 30%
won't participate



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Phobic Disorders

- ★ An irrational fear of some stimulus that causes
 - Disabling avoidance, or
 - Anxiety or panic when the feared stimulus cannot be avoided
- ★ Insight is typically preserved



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Phobic Disorders 2

- ★ Social phobia – fear of embarrassing one-self in a social or performance situation
- ★ Specific phobias – fear of...
 - Animals or insects
 - Natural environment (e.g., heights)
 - Situational (e.g., flying)
 - Blood or Injection
- ★ Agoraphobia – fear of places or situations from which escape might prove difficult or embarrassing



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Phobic Disorders 3

- ★ Prevalence –
 - Social ~ 3 – 5% (common)
 - Specific ~ 10 + % (very common)
- ★ Specific phobias more common among women
- ★ Social phobias men=women
- ★ Prognosis –
 - Specific – least disabling psychiatric disorders – few seek treatment
 - Treatments are very effective



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Phobic Disorders 5

Common Psychotherapies

- ★ Behavioral – very effective
 - Exposure (actual or imaginal)
 - Flooding
 - Systematic desensitization
 - Progressive relaxation
- ★ Cognitive-behavioral – response prevention



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Anxiety Secondary to Another Psychiatric Disorder

- ★ Depression
- ★ Substance misuse
- ★ Schizophrenia
- ★ Adjustment disorder with anxious mood
 - Like acute stress disorder, but stressor is less severe (e.g., move, job change, break-up)



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Differential Diagnosis

- ★ General medical conditions?
- ★ Substance use or misuse?
- ★ Which type of anxiety disorder?
 - Anxiety in "attacks"?
 - Traumatic event?
 - Specific stimulus?
 - Obsessions or compulsions?
 - Recent stressor?



**Human Behavior Course
2004**

Substance Use Disorders

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HUMAN BEHAVIOR COURSE 2004
SUBSTANCE USE DISORDERS - LECTURE SLIDES

LEARNING OBJECTIVES AND STUDY QUESTIONS FOR DISCUSSION.
To be distributed.

Slide 1

**SUBSTANCE RELATED
DISORDERS**

**Read: Chapter 12 in Cohen, Theory
and Practice of Psychiatry**

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Learning Objectives

- Know the “gestalt DSM criteria” for each of the basic disorders covered in this lecture.
- Describe the bio-psycho-social risk factors, prognostic factors, and epidemiology of each disorder.
- Be prepared to initial collection of appropriate data about medically significant substance use.
- Introduction to the medical/psychiatry management of these disorders.

Learning Methods

- Read and know the material in your text,
- Supplement this with the materials from this lecture,
- Seek continuing references from the medical and psychiatric literature,
- Prepare yourselves to learn from your clinical experience.

Study

- **What are drug and alcohol:**
 - **Intoxication,**
 - **Abuse,**
 - **Dependence, &**
 - **Withdrawal ?**

Study

- **What are the performance, medical & psychiatric consequences of substance misuse & dependency? (Special importance for the military?)**
- **What are the bio-psycho-social mechanisms that determine risk of substance misuse and dependency?**
- **What are the relationship of these problems to medical & surgical disorders?**

Legal vs. Illegal vs. Stigma

- **There is no scientific or biomedical distinction between illegal drugs such as heroin and cocaine and legal drugs such as alcohol and nicotine when one is discussing a dependency or “addiction”.**
- **Legal and illegal categories has a historical and social basis rather than a medical one .**

Addiction and dependency

- **The core features of addiction or dependency are compulsive drug use and loss of control over use despite serious negative consequences.**
- **Frequently but not always associated with withdrawal syndrome as distinct from rebound symptoms.**

Complex diagnostic & therapeutic challenges

- **Concurrent alcohol and poly-drug misuse is common.**
- **Lifetime prevalence of major psychiatric disorders co-occurring with substance use disorders has been estimated to be as high as 70%, e.g.**
 - Depression,
 - Bipolar Disorder,
 - Anxiety Disorders,
 - Schizophrenic Disorder
 - Conduct Disorder,
 - Antisocial Personality Disorder, &
 - Attention Deficit Disorder.

Co-Morbid medical, surgical and psychiatric conditions for example

- **Psychiatric disorder**
 - Bipolar disorder
 - Schizophrenic disorder
 - Anxiety disorders (e.g. PTSD)
 - Character & behavior disorders
- **Physical trauma and burns**
- **Interpersonal violence and abuse**
- **A variety of chronic medical conditions e.g. gastritis, cirrhosis, hypertension, & various carcinoma**

Cause of drug abuse

WE DON'T KNOW

- We can examine the bio-psycho-social factors that influence the risk of alcohol and substance abuse.
- Appreciate neurobiological mechanisms and consider how these interact with behavioral, psychological and social factors in the pathogenesis of acute and chronic disorders.

Parameters of risk

- Bio:
 - Genetic/genomic factors
 - Drug's reinforcement properties
 - Tolerance
 - Addictive properties
- Psycho:
 - Other psychiatric illness
 - Risk taking
 - Personality - extroversion
- Social:
 - Family model of drug use
 - Religious and cultural beliefs and practices
 - Peer influence on drug use, & abuse
 - Availability & cost

Risk factors for substance abuse & dependency

- **The best-established risk factors for substance abuse and dependency are family history and male sex.**
- **Twin and pedigree studies make it clear that risk of substance use disorders is genetically complex (i.e., multiple genes and non-genetic factors interact to produce risk).**

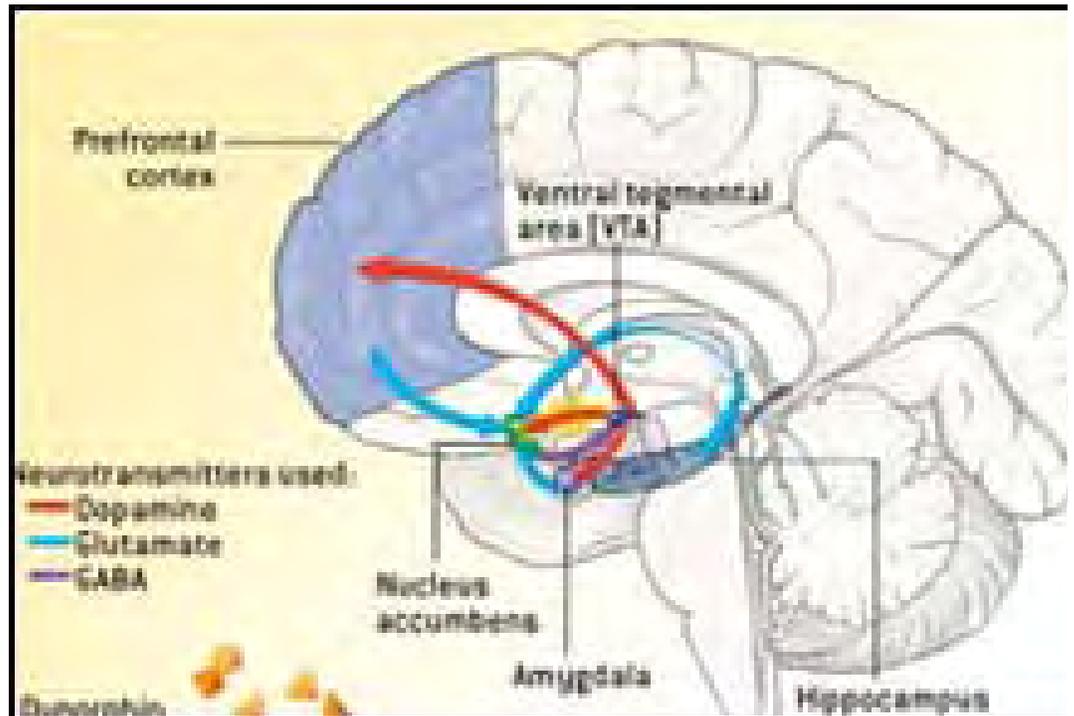
Risk factors for substance abuse & dependency

- **Drug's psycho-pharmacological properties,**
- **Availability and cost,**
- **Assessment of risk,**
- **Peer pressure,**
- **Parental drug use models and direction,**
- **Demographic factors (e.g. age) &**
- **Popular culture**

Biology of addiction

Eric J. Nestler and Robert C. Malenka The Addicted Brain Scientific American March 04

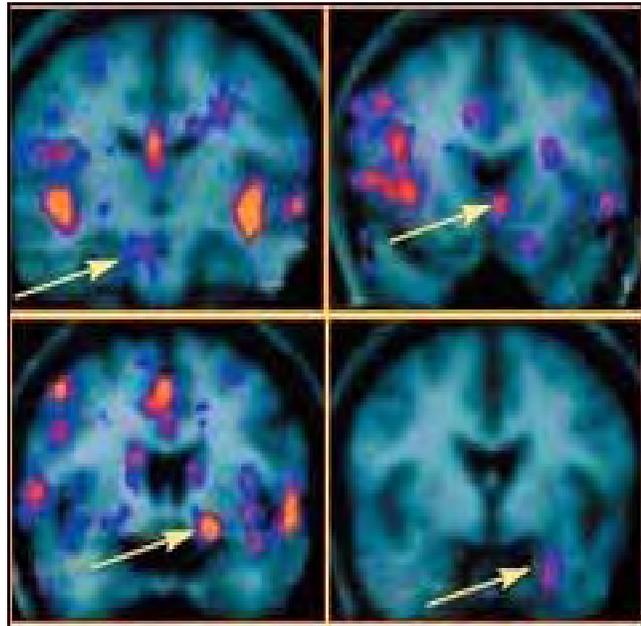
- Nicotine induced VTA cells to release dopamine into nucleus accumbens,
- Cocaine and other stimulants temporarily disable the transporter protein that returns the neurotransmitter to the VTA neuron terminals, &
- Alcohol, and opiates like heroin bind to neurons in the VTA that normally shut down the dopamine-producing VTA neurons.
- Through different mechanisms leaving excess dopamine to act on the nucleus accumbens.



Biology of Addiction: Examples of brain areas that play roles in development of drug addiction

- Amygdala assesses whether an experience is pleasurable or aversive
- Dopamine pathway from the VTA to the nucleus accumbens is critical for addiction
 - These acts as a rheostat of reward: it "tells" the other brain centers how rewarding an activity

- Ventral tegmental area (VTA)
- Nucleus accumbens
- Sublenticular extended amygdala
- Amygdala



Mechanisms of tolerance

- **The most significant aspects of tolerance to psychoactive substances have a pharmacodynamic basis. (The focus in this presentation.)**
- **There are also pharmacokinetic parameters. (e.g. induction of liver enzyme systems)**

Two Mechanisms For Tolerance

Eric J. Nestler and Robert C. Malenka The Addicted Brain Scientific American March 04

- **CREB (cAMP response element-binding protein). a transcription factor, a protein regulates the expression, or activity, of genes and the overall behavior of nerve cells. When drugs of abuse raise the dopamine concentrations in the nucleus accumbens, inducing dopamine-responsive cells to increase production of cyclic AMP (cAMP), which in turn activates CREB. After CREB is switched on, it binds to a specific set of genes, triggering production of the proteins those genes encode. target genes, that encode for proteins that then dampen the reward circuitry.**
- **CREB controls the production of dynorphin ... synthesized by a subset of neurons in the nucleus accumbens that loop back and inhibit neurons in the VTA inducing tolerance by making the same-old dose of drug less rewarding.**

Biology Of Relapse to Addiction

- Responsiveness of the VTA and nucleus accumbens to glutamate altered for days
- Changes in sensitivity to glutamate in the reward pathway enhance both the release of dopamine from the VTA promoting CREB and delta FosB activity. Drugs of abuse influence the shuttling of glutamate receptors in the reward pathway. Some findings suggest that they can also influence the synthesis of certain glutamate receptors.
- With prolonged abstinence, changes in delta FosB activity and glutamate signaling predominate. These actions may draw an addict back for more--by increasing sensitivity to the drug's effects if used again. Also eliciting powerful responses to memories of past highs and to cues that bring those memories to mind.

• Eric J. Nestler and Robert C. Malenka The Addicted Brain Scientific American March 04

Effects of alcohol

- Ethanol binds to postsynaptic GABA(A) receptors (inhibitory neurons)
- activation of these receptors results in opening of chloride channels, thus causing chloride influx, which hyperpolarizes the cell. The decrease in the firing rate of neurons produces sedation.

Delirium Tremens: Pathophysiology

Excessive CNS excitability during abstinence from alcohol is related to ETOH effect on number and function of brain receptors. E.G. after chronic ETOH use withdrawal results in:

- Loss of GABA-A receptor stimulation causes a reduction in chloride flux and is associated with tremors, diaphoresis,
- After chronic suppression of excitatory neurotransmission there is increased synthesis of excitatory neurotransmitters (e.g. norepinephrine, serotonin, and dopamine) following drug withdrawal tachycardia, anxiety, and seizures.
- EtOH inhibits *N*-methyl *D*-aspartate (NMDA) (glutamate-subtype) receptors, withdrawal of inhibition of the NMDA receptors may also lead to seizures and delirium.

Delirium Tremens

- Occurs in 5% of patients with alcohol withdrawal
- the current mortality for patients with DTs ranges from 5-15%.
- *Most common Rx Benzodiazepines* -- By acting on the GABA receptor, benzodiazepines produce a cross-tolerance to alcohol, thus reducing the hemodynamic and peripheral symptoms of alcohol withdrawal.
- Clonidine and beta-blockers have been used to treat the hyperadrenergic state of alcohol withdrawal.

Slide 24

Critical issues in military, community and preventative psychiatry

- **Alcohol Abuse and Dependency Disorders**
- **Substance Abuse and Dependency Disorders**

Slide 25

Substance-induced Disorders

- Substance Intoxication
- Substance Abuse
- Substance Dependence
- Substance Withdrawal
- Substance Intoxication Delirium
- Substance Withdrawal Delirium

Substance-induced Disorders

Specify if intoxication or withdrawal
induced

- Substance-Induced Psychotic Disorder
- Substance-Induced Mood Disorder
- Substance-Induced Anxiety Disorder
- Substance-Induced Sexual Dysfunction
- Substance-Induced Sleep Disorder

Substance-induced Disorders

- **Substance-Induced Persisting Dementia**
- **Substance-Induced Persisting Amnesic Disorder**
- **Hallucinogen Persisting Perception Disorder (Flashbacks)**

Historical epidemiology military drug abuse

ERA	DRUG ABUSED
<ul style="list-style-type: none"> • 19th Century • War of Philippine Insurrection 	ethanol opiates
<ul style="list-style-type: none"> • Canal Zone 06-30's • WWI 	cannabis opiate use claimed
<ul style="list-style-type: none"> • China in 20's 	cocaine

Historical epidemiology military drug abuse

ERA	DRUG abused
<ul style="list-style-type: none"> • WWII 	minor local problems
<ul style="list-style-type: none"> • Japan (45-50) 	methamphetamine use
<ul style="list-style-type: none"> • Korea(50-54) (URINALYSIS-BEGUN) 	heroin epidemic
<ul style="list-style-type: none"> • NE Asia(54-80) 	endemic poly-drug use
<ul style="list-style-type: none"> • SE Asia(64-69) 	poly-drug use and some heroin use

HISTORICAL EPIDEMIOLOGY MILITARY DRUG ABUSE

- **Global 60's poly-drugs epidemic –**
 - MJ + opioids + stimulants
 - No unique epidemic in Vietnam
 - Combat goes down & drug use goes up
 - Drug urinalysis becomes standard tool in 1971
 - Drug and alcohol programs are standard.
- **Epidemic drug abuse continues ending in early 1980s**

Historical epidemiology military drug abuse

- **All epidemic illicit drug use occurs in the context of endemic alcohol abuse & dependency & poly-drug abuse is common.**
- **Alcohol abuse exceeds that of matched civilian population.**
- **Service people obtain drugs from friends and usual commercial establishments near installations or from civilian friends.**

HISTORICAL EPIDEMIOLOGY MILITARY DRUG ABUSE – 1971- 1973

- **Korea had high rates of barbiturate use and higher hospitalization rates than the Vietnam theater**
- **Ft. Lee had heroin use rate comparable to Vietnam**
- **Marijuana used with alcohol 70%+ use with other drugs common**
- **PCP used by approx. 12% at some US bases**

Historical epidemiology military drug abuse

- **Vietnam 1972 - 43% E1-E5 heroin users - no relationship to combat experience noted**
- **21% E1-E4 addicted**
- **Upon return to us 95% of user stopped use of opiate drugs &**
- **Of heaviest users - 9% continued heroin use after return civil life.**
- **Heavy alcohol use & depression in heroin users who stopped.**

Historical epidemiology military drug abuse

- **Pandemic drug abuse through out the military from 1969 to 1980 with varying attention to the problem after 1973.**
- **Wide spread endemic misuse of alcohol is defined as a military medical and command concern.**
- **Fundamental changes in selection and organization in navy, marine, and army (Problem least in USAF).**

HISTORICAL EPIDEMIOLOGY MILITARY DRUG ABUSE

- **1974 B-hepatitis in 1 in 5 E1-E5**
- **Incidence rose from 1/1000 in the late 1960's 27/1000 in march 1974 in us forces in Europe**
- **(Hepatitis C risk ?)**
- **Excessive cost and injury 2° to the related accidents continue.**
- **Crashes of air craft with drug positives in crew in 1970 show continuing risks.**

Military drug abuse: factors influencing military programs

- **Congressional interest**
- **Presidential interest**
- **Allies**
- **Commander's values**
- **Medical commitment**

HISTORICAL EPIDEMIOLOGY MILITARY DRUG ABUSE

- **Alcohol recognized as disease causing and as threatening military performance.**
- **Alcohol and drug abuse prevention programs that included treatment were established.**

Drug and alcohol use: performance consequences

- **Critical issue for the military**
- **Critical issue for industrial base**
- **Legal and illegal drug's side effects**
- **Can drugs improve performance?**
- **How do drugs lead to performance "short fall"?**

Historical epidemiology military drug abuse

- **Command moved from a passive to active stance.**
- **Law enforcement, drug urinalysis, drinking policies, were better coordinated.**
- **Higher induction standards**
- **Users could self identify and be treated but continued use not tolerated.**

HISTORICAL EPIDEMIOLOGY MILITARY DRUG ABUSE

- **Attention to command presence with troops and sailors on duty and off .**
- **Attempt to stabilize residence in group to allow**
- **Cohesion - with peers and with mission leaders in training and deployment.**

Epidemiology military drug abuse

- **Being in the service puts a person at increased risk for substance use and abuse (Least true for the USAF).**
- **Younger males less gifted males are at greatest risk.**
- **Slightly higher risk for Caucasian and Hispanic individuals.**
- **Less risk for women.**

Epidemiology military drug abuse

- **Risk for young males was increased by living in the barracks,**
- **Command presence decreased risk,**
- **Supply was principally from other users &**
- **Gateway drugs were tobacco, alcohol and marijuana.**

Epidemiology military drug abuse

- **Early, the user, abuser & dependent who continued to perform well.**
- **Usually, the family and off duty personal relationships suffered first.**
- **Used by those performing well assures a profitable drug market.**
- **Only by reducing multiple risk factors the causes of drug and alcohol abuse could be reduced.**

Military drug abuse: prevention

- **Reduce “at risk” population size**
 - Reduce users at induction
 - Encourage long enlistments
 - Reward commitment to future commitments (e.g. Offer payment for college as incentive)
 - Encourage marriage.
- **Drug urinalysis used to monitor at induction and to find cases.**
- **Command presence in barracks increased.**

Military drug abuse: prevention

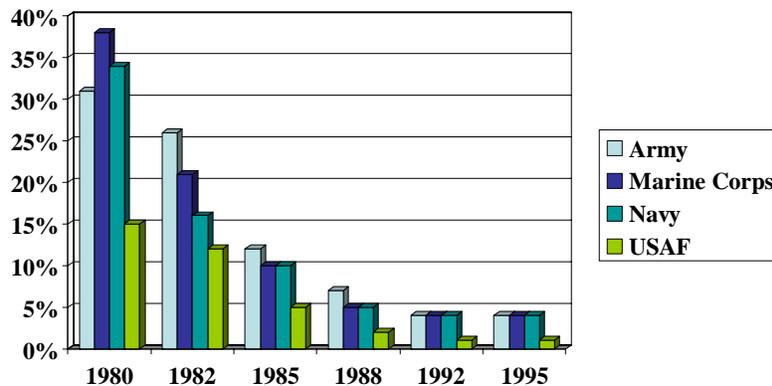
- **Increased unit cohesion with command/mission focus.**
- **The command, the unit, the medical system & the individual are critical to making it work. It’s a team effort!**
- **Monitor success with repeated surveys &**
- **Keep the problem & its solution visible.**

EPIDEMIOLOGY MILITARY DRUG ABUSE

- Law enforcement could identify agents and their users but could not control access to intoxicant; their role was critical.
- Physician could play a critical role by helping those with problems seek treatment – could not reduce incidence.
- Command action the key,
- Coerced treatment works.

Illicit drug use in last 30 days by service by year

Data from 1985 DOD Survey of Health Related Behaviors Among Military Personnel



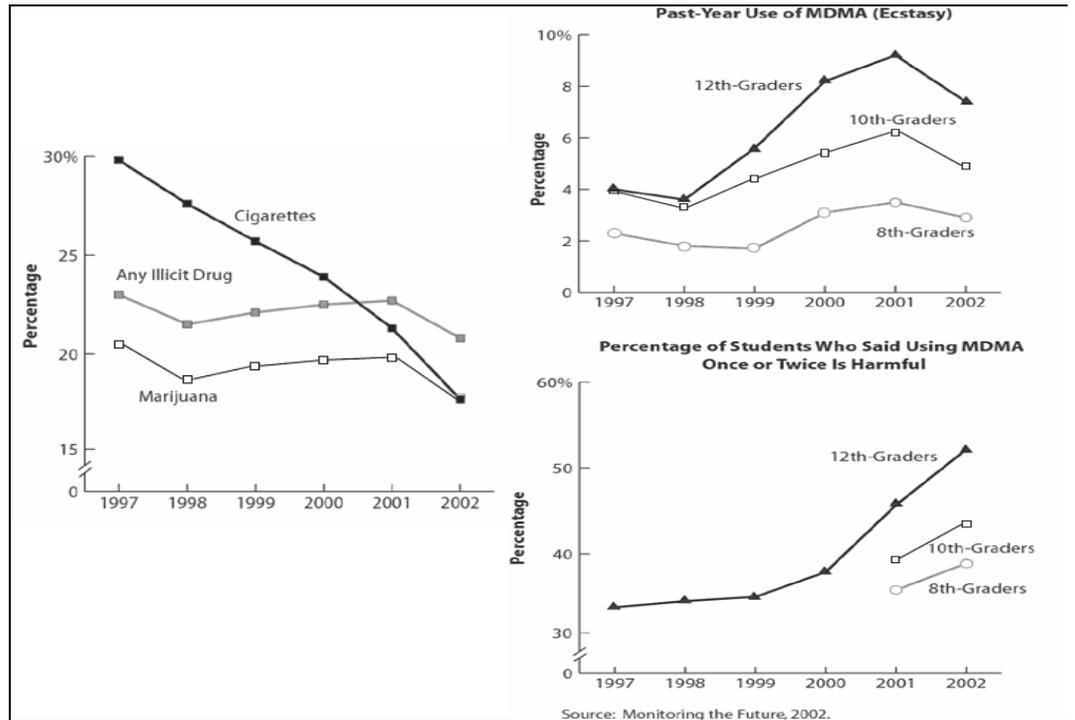
WHAT MADE THE DIFFERENCE?

**THESE ARE SOME OF THE
THINGS**

- **Decrease of denial at the top**
- **Smarter, more educated service people**
- **Older, more officers**
- **More married force**
- **More family support**
- **Provide help**
- **No tolerance of abuse**
- **More women on active duty**
- **More support for healthier life style**
- **Better leadership**
- **Treatment available for motivated**

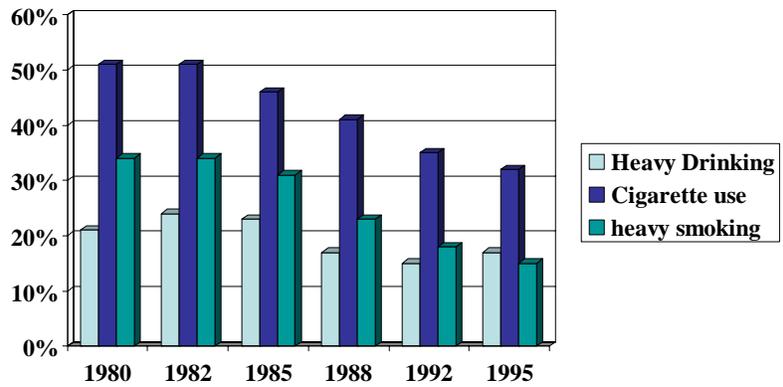
SOME OPEN ISSUES

- The reserve not addressed in same detail
- Under-funded programs
- Conflicts concerning commitment to encourage unit cohesion
- New drugs on the scene for younger people in the services for example Ecstasy (methylenedioxy-n-methylamphetamine - MDMA)



Heavy drinking & cigarette use in past 30 days

Data from 1985 DOD Survey of Health Related Behaviors Among Military Personnel



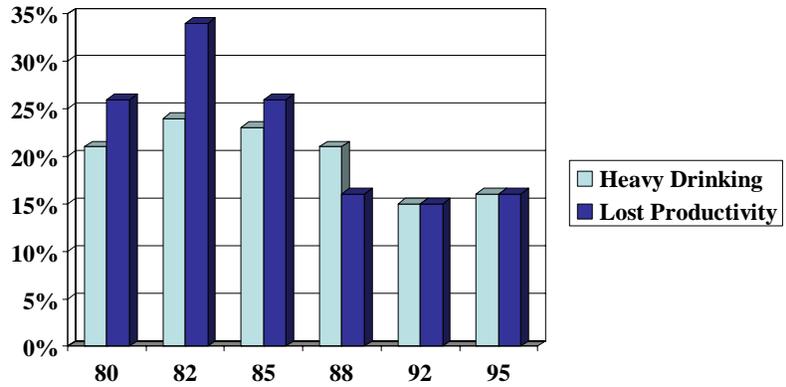
Alcohol use - consequences

Data from 1985 DOD Survey of Health Related Behaviors Among Military Personnel

DRINKING LEVEL	SERIOUS CONSEQUENCES
Infrequent/light	04.3
Moderate	03.7
Moderate heavy	07.8*
Heavy	23.8 **

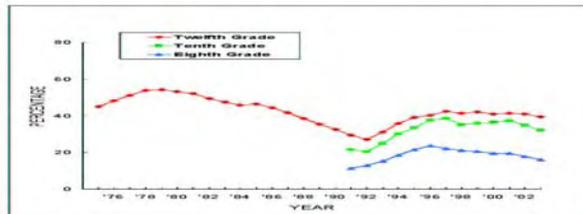
Last 12 months: heavy drinking & lost productivity 2° to alcohol

Data from 1985 DOD Survey of Health Related Behaviors Among Military Personnel



Over all drug abuse in high school students is stable or trending slightly downward

FIGURE 2
Trends in Annual Prevalence of an Illicit Drug Use Index
Eighth, Tenth, and Twelfth Graders



But

- **Heroin is very cheap on city streets and in non-metropolitan areas,**
- **It is relatively pure, &**
- **Widely available.**
- **Stay vigilant.**

Denial of abuse and dependency is a major problem

- **Abusing & addicted patients are in denial concerning the consequence chosen substance.**
- **Patients who are dependent on drugs, including alcohol and tobacco, are frequently ashamed of their inability to control their behavior.**
- **Many abusing & addicted patients deny significant use or loss of control.**
- **They become defensive or overtly angry when pressed, and**
- **Others, including physicians and loved ones, support the denial of these patients**

Clinical evaluation

- **General Questions to Be Asked of All Patients**
 - Do you drink alcohol (ever or currently)?
 - Do you have a family history of alcoholism?
- **Questions Concerning Quantity and Frequency of Alcohol Use**
 - What type(s) of alcohol (beer, wine, spirits) do you use? How often do you drink?
 - How much do you usually drink on a typical drinking day?
 - Do you ever drink more (if so, how much) than your usual amount?

Clinical evaluation 2

- **Screen for alcohol problems,**
- **Screen for other drug problems,**
- **Educate about risky drinking, drug abuse and its consequences, and**
- **Perform a detailed alcohol and drug use history for all patients who may have problem drinking or a drug problem.**

Drugs use history

- Drug or drugs of choice
- Subjective effect of drug
- Frequency, amount, and method of use (route of administration)
- Usual and preferred social occasion for use
- Problems associated with drug use (e.G. Arrests or injuries)
- Detoxifications,
- Concomitant use of other substances especially alcohol
- Date and age of first use, and
- Time interval from last use.

CAGE Screen for Dx alcoholism

Have you ever:

- C CUT BACK on your drinking?
- A felt ANNOYED by people criticizing your drinking?
- G felt GUILTY or bad about your drinking?
- E had a morning EYEOPENER to relieve a hangover or nerves?

CAGE Screen for Dx alcoholism

- **Cage sensitivity ranges from 60% to 95%,**
- **Cage specificity ranges from 40% to 95%.**
- **It is poor in detecting women with alcohol problem and is**
- **Not as good a detector with elderly people.**
- **It is effective but flawed.**

Added to the CAGE to identify risk in women and older drinkers

1. "Do you ever carry an alcoholic beverage in your purse?"
2. "How has your drinking changed during pregnancies?"
3. "What effect do you feel your drinking has had on your children?"

Added to the CAGE to identify risk in women and older drinkers

- 4. Ask elderly women (and you can profitably ask older men), "did you find your drinking increased after someone close to you died? (A yes may indicate a cultural norm in the patient's group)**
- 5. Does alcohol make you sleepy so that you often fall asleep in your chair?"**

Alcohol use disorder identification test (AUDIT)

- See hand out for example of AUDIT**
- Score of eight or more provides sensitive test for the identification of at risk drinkers of alcohol.**
- The Health Evaluation and Assessment Review (HEARS) for service people includes a AUDIT**

For at-risk drinkers

- **Assess patients for alcohol-related medical, psychiatric, and behavioral problems**
- **Advise nondependent at-risk problem drinkers to decrease their alcohol consumption to an amount below at-risk levels (e.g., brief intervention therapy)**
- **Advise those at-risk drinkers who cannot decrease their alcohol use to recommended levels to abstain from alcohol**
- **Monitor and assess drinking behavior over time**

For alcohol-dependent patients

- Advise alcohol-dependent drinkers to abstain from alcohol;
- Refer them to appropriate alcohol treatment services for detoxification (if needed) and prevention of relapse;
- Identify and manage alcohol-related medical, psychiatric, and behavioral problems (Management of co-morbidly is critical);
- Monitor patients in recovery to promote abstinence and assess for relapse.

Acute treatment challenges

- **Opiate overdoses – respiratory suppression (ventilation & naloxone),**
- **Stimulants (e.G. Cocaine methamphetamine and amphetamine derivatives) - irritability, paranoia, and assaultiveness, as well as high fever and seizures,**
- **Phencyclidine (angel dust), ketamine, and related drugs assaultive behavior and psychotic symptoms,**
- **Alcohol & sedative intoxication &**
- **Adverse reactions to LSD and other hallucinogens.**

TREATMENT OF SUBSTANCE ABUSE

- **12 step programs with goal of alcohol/drug free life (E.G. AA, some faith based programs, Synanon and others)**
- **Functional recovery with possible pharmacological assistance or maintenance**

TREATMENT OF SUBSTANCE ABUSE

- **Relapse avoidance** (provides support for continuing alcohol remission, naltrexon, behavioral therapy)
- **Drug substitution & maintenance** (e.g. Methadone. LAAM maintenance)
- **Treatment of co-morbid condition and complications**
- **Identification, prevention & treatment of medical complications** (e.g. Needle exchange)

Brief interventions

- **Motivating patients to change their behavior and lifestyles;**
- **Teaching patients coping skills to avoid alcohol use;**
- **Encouraging patients to develop activities that do not reinforce drinking and that reward abstinence;**
- **Helping patients to improve interpersonal interactions; and**
- **Promoting compliance with pharmacotherapy and medical care.**

Evidence based pharmacological treatments

- Naltrexone decreased alcohol-induced dopamine response in a dose-dependent manner and
- Reduces the pleasurable effects associated with alcohol ingestion and
- Patients consumed less alcohol with good compliance on 50 (mg/day).
- 1/3 relapse in 12 wks & those who do not relapse likely to be abstinent.

Evidence based pharmacological treatments

- **Methadone Maintenance (may use LAAM)**
- **Opioid antagonists (Naltrexone) ?**
- **Buprenorphine (Subutex) (mu agonist & kappa antagonist) followed by Buprenorphine + Naloxone (Suboxone) maintenance.**
- **Community verses Pt. Acceptance ?**

Evidence based pharmacological treatments

- **Acamprosate affects two transmitter systems - glutamate system and the gamma-aminobutyric acid system**
- **Decreases voluntary alcohol intake with no effects on food and water consumption**
- **Patients on acamprosate experienced higher abstinence rates in 10 of the studies, those who relapse drink less**
- **Currently being studied in major trials in US finding indicate significantly higher rates of abstinence and treatment attendance than those on the placebo.**

Drug	Starting Dose	Maintenance Dose	Interval	Comments
Disulfiram	500 mg	125-500 mg	Every morning for 1-2 wk	Requires careful patient education about disulfiram-alcohol interaction [lack convincing efficacy studies]
Naltrexone	50 mg	50 mg	Once a day	Contraindicated in patients with severe liver disease; side effects generally infrequent, mild, and self-limited (e.g., nausea)
Acamprosate	1.3-2.0 g	-	Every day in three divided doses	Not approved by the FDA; side effects generally infrequent, mild, and self-limited (e.g., diarrhea)

Evidence based pharmacological treatments

- **SSRI , do they help the non-depressed**
- **Disulfiram,s usefulness not demonstrated in an evidence based evaluation.**

TREATMENT OF SUBSTANCE ABUSE: OPIATES & VALUES

- **Religious & political values rather than data on efficacy dominate the regulation of Rx**
- **Drug free Rx favored politically**
- **For opiates methadone maintenance & needle replacement superior for harm reduction**
- **20% of the opiate addicted receive methadone maintenance.**

One method for approaching the Substance abuse and dependent patient:

**Provide excellent medical care
Establish yourself as the patient's physician friend and as such raise the issue of drinking as a health issue.**

Arrange a confrontation with the help of significant others - people who love and respect the patient.

This confrontation should be able to offer a pre-arranged treatment option or options.

If at first you don't succeed, try and try again.

Approach the patient with optimism and realism.

The critical step in treatment is the patient's decision that he/she must take charge of his/her life with the realization that it is a matter of life or death.

Inhalant Abuse – Risk factors

- **Economically disadvantaged youth (13-15)**
- **Younger users (e.g. eighth graders)**
- **Higher rates among Mexican, Indian, and Native American youth**
- **Nitrous oxide among medical personnel**

On-line sources

- National Institute on Alcohol Abuse and Alcoholism (<http://www.niaaa.nih.gov>)
- *National Institute on Drug Abuse* <http://www.nida.nih.gov>
- National Clearinghouse for Alcohol and Drug Information (<http://www.health.org>)
- Alcoholics Anonymous (<http://www.alcoholics-anonymous.org>)
- *The Substance Abuse and Mental Health Services Administration* <http://www.samhsa.gov>
- *The National Center on Addiction and Substance Abuse at Columbia University* <http://www.casacolumbia.org>

Don't forget the LRC for example

On line texts:

- **The Scientific American Text Book Of Medicine**
- **E-Medicine**

HUMAN BEHAVIOR COURSE 2004

ALCOHOL USE DISORDER IDENTIFICATION TEST (AUDIT)

1. How often do you have a drink containing alcohol?
 - NEVER...0
 - MONTHLY OR LESS...1
 - 2 OR 4 TIMES A MONTH...2
 - 2 OR 3 TIMES A WEEK...3
 - 4 OR MORE TIMES A WEEK...4

2. How many drinks containing alcohol do you have on a typical day when you are drinking?
 - 1 OR 2...0
 - 3 OR 4...1
 - 5 OR 6...2
 - 7 OR 8...3
 - 10 OR MORE...4

3. How often do you have six or more drinks on one occasion?
 - NEVER...0
 - LESS THAN MONTHLY...1
 - MONTHLY...2
 - WEEKLY...3
 - DAILY OR ALMOST DAILY...4

4. How often during the last year have you found that you were unable to stop drinking once you had started?
 - NEVER...0
 - LESS THAN MONTHLY...1
 - MONTHLY...2
 - WEEKLY...3
 - DAILY OR ALMOST DAILY...4

5. How often during the last year have you failed to do what was normally expected from you because of drinking?
 - NEVER...0
 - LESS THAN MONTHLY...1
 - MONTHLY...2
 - WEEKLY...3
 - DAILY OR ALMOST DAILY...4

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
 - NEVER...0
 - LESS THAN MONTHLY...1
 - MONTHLY...2
 - WEEKLY...3
 - DAILY OR ALMOST DAILY...4

7. How often during the last year have you had a feeling of guilt or remorse after drinking?
 - NEVER...0
 - LESS THAN MONTHLY...1
 - MONTHLY...2
 - WEEKLY...3
 - DAILY OR ALMOST DAILY...4

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
 - NEVER...0
 - LESS THAN MONTHLY...1
 - MONTHLY...2
 - WEEKLY...3
 - DAILY OR ALMOST DAILY...4

9. Have you or someone else been injured as a result of your drinking?
 - NEVER...0
 - YES, BUT NOT IN THE LAST YEAR...2
 - YES, DURING THE LAST YEAR...4

10. Has a relative, friend, or doctor or other health worker been concerned about your drinking or suggested you cut down?
 - NEVER...0
 - YES, BUT NOT IN THE LAST YEAR...2
 - YES, DURING THE LAST YEAR...4