

Introduction to Therapy and the Psychological Therapies

Treating Psychological Disorders

- Pinel and Dix pushed for gentler, more human treatments in mental hospitals
 - Effective drug and community based therapies have been established since 1950s
- Psychotherapy
 - Psychological treatments to assist one to overcome difficulties and achieve personal growth
 - Uncover hidden meaning in early relationships, adopt new ways of thinking, replace old behaviors with new ones
 - Interactions between trained therapist and someone seeking to overcome psychological difficulties or achieve personal growth
- Biomedical therapy
 - Medication and biological treatments
 - Severe depression = antidepressants, electroconvulsive shock therapy (ECT), or deep brain stimulation
 - Prescribed medications or procedures that act directly on a person's physiology
- Psychotherapy can be a biomedical therapy because you're changing the way you think, feel, and can = changes in the brain
- Eclectic approach: approach to psychotherapy that uses techniques from various forms of therapy

Psychoanalysis and Psychodynamic Therapies

- First major psychological therapy was Freud's **psychoanalysis**
 - Few clinicians practice it today
 - Form foundation for treating psychological disorders
 - Influence modern therapists working from psychodynamic perspective
- Patients free associations, resistances, dreams and transferences and therapists interpretations of them = release repressed feelings, allow patient to gain insight

Goals

- Achieve healthier, less anxious living by releasing energy they had devoted to id-ego-superego conflicts
- We can want something but also fear it → this method helps people face unwanted facts
- Bring patients repressed or disowned feelings into conscious awareness
 - Reclaim unconscious thoughts and feelings, give them insight into origins of their disorder, reduce growth impediment

Techniques

- Emphasizes the power of childhood experiences to mold adult
- Free association
 - Relaxing, say whatever you think aloud
 - Relating your childhood memories to something
- Resistance
 - Blocking from consciousness of anxiety-laden material
 - Defending against sensitive material
- Analyst uses interpretation to note supposed dream meanings, resistances, and other significant behaviors and events to promote insight

- Underlying wishes, feelings and conflicts
- How this resistance fits with other pieces
- Transferring feelings
 - Transference
 - Patient's transfer to analyst of emotions linked with other relationships (love or hatred for a patient)
 - Allows you to gain insight in current relationships
- Psychoanalysis takes time and money, several sessions/week

Psychodynamic Therapy

- Deriving from psychoanalytic therapy, views individuals as responding to unconscious forces and childhood experiences, and seeks to enhance self-insight
- Help understand current emotions
- Childhood experiences and therapist relationships
- Explore defended against thoughts and feelings
- Ex. man told all these ladies he loved them without actually loving them, couldn't say it to his actual wife
 - Cut off from nature, estranged from himself
 - Restore their awareness of their own wishes and feelings
- Help reveal past relationship troubles as origin of current difficulties
- Shedler: complaints of getting along with wife and colleagues, proceeded to be defensive responding to people
 - Identified his recurrent personality
 - Led him to remove this negative defensive personality
- Interpersonal psychotherapy
 - 12-16 sessions
 - Treated depression, help people gain insight into roots of their difficulties
 - Goal is symptom relief
 - Focuses on current relationships and helping people improve their relationship skills
- Ex. Anna
 - 34 year old married professional
 - Tension with husband over wish for another child
 - Depressed, trouble sleeping, irritable, gained weight
 - Engage her thinking on more immediate issues
 - How to balance work and home, resolve dispute with husband, express her emotions effectively

Humanistic Therapies

- Emphasizes human inherent potential for self-fulfillment
- Reduce growth-impeding conflicts by providing client with new insights
- Insight therapies
 - Improve psychological functioning by increasing a person's awareness of underlying motives and defenses
- Differ from psychoanalytic therapies:
 - Promoting growth, not curing illness, therapy focus
 - Path to growth = immediate responsibility for one's feelings and actions, not uncover hidden determinants
 - Conscious thoughts are more important than unconscious

- Present and future are more important than the past
 - Explore feelings as they occur
- Client-centered therapy → Carl Rogers
 - Therapist uses techniques such as active listening with genuine, accepting empathetic environment to facilitate clients' growth
 - Also person-centered therapy
 - Nondirective therapy
 - Exhibit genuineness, acceptance and empathy
- Active Listening
 - Echoing, restating, seeking clarification of what the person expresses
 - Unconditional positive regard
 - Caring, accepting, non-judgemental attitude = good self awareness and self-acceptance
 - Paraphrase
 - Summarize what the person says in your own words
 - Invite clarification
 - What might be an example of that?
 - Encourages the person to say more
 - Reflect feelings
 - It sounds frustrating
 - What you're sensing from body language

Behavior Therapies

- Doubt the healing power of self-awareness
- Therapy that applies learning principles to the elimination of unwanted behaviors
- Problem behaviors are the problems
- Application of learning can eliminate them
- Maladaptive symptoms (phobias or sexual dysfunction) as learned behaviors that can be replaced by constructive behaviors

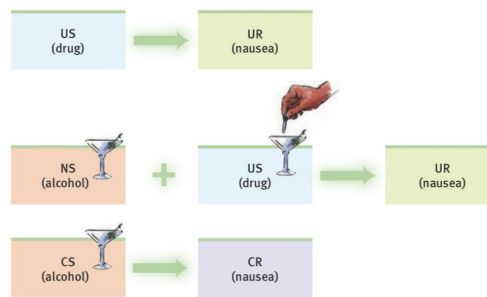
Classical Conditioning Techniques

- Mowrer → thought reconditioning could be a solution for maladaptive symptoms
 - Created successful conditioning therapy for bed wetters
 - Liquid sensitive pad connected to an alarm
 - Moisture = alarm
 - $\frac{3}{4}$ successful
- Counterconditioning
 - Behavior therapy procedures that use classical conditioning to evoke new responses to stimuli that are triggering unwanted behaviors; include exposure therapies and aversive conditioning
 - Exposure therapy
 - Brings what the person is scared of and associates it with pleasurable, relaxed response
 - Wolpe → worked on Jones' technique
 - Systematic desensitization, virtual reality exposure that treats anxieties by exposing people to the things they fear and avoid
 - Systematic desensitization
 - Exposure therapy that associates a pleasant relaxed state with gradually increasing anxiety-triggering stimuli
 - Commonly used to treat phobias

- Proceed gradually
- Progressive relaxation
 - Therapist would train you to relax
 - Imagine scene that is relaxing paired with relaxation until there's no anxiety
 - Raises your self-confidence
 - Ex. You are having coffee with a group of friends and are trying to decide whether to speak up
 - If the scene = anxiety, signal the tension using your finger, therapist encourages you to go back to deep relaxation
 - Imagine scene is repeatedly paired with relaxation until = no anxiety
- Anxiety arousing situation → too expensive, difficult, embarrassing to recreate, virtual reality exposure therapy
 - Anxiety treatment that exposes people to electronic stimulations of their greatest fears, such as airplane flying, spiders, or public speaking
 - Virtual reality exposure therapy
 - Anxiety treatment the progressively exposes people to electronic stimulations of their greatest fears such as airplanes, spiders, public speaking
 - Experiments → treated many different people with different fears
 - Fear of flying, you can see yourself flying, feel the vibrations, hear the engine
 - Allows for relief from real-life fear

Aversive Conditioning

- Type of counterconditioning that associates with unpleasant states such as nausea, with an unwanted behavior (drinking alcohol)
- Substitute negative response for a positive one to a harmful stimulus
 - If you want to avoid drinking you can use the aversive conditioning, learn to hate alcohol



- Alcohol, drugs that cause nausea in alcohol to make you pukey, then you won't drink
- Wiens and Menustik looked at those with alcohol use disorder, aversion therapy program = successful in abstaining after a year, but after 3 years only a small group of people abstained
- Cognition influences conditioning
 - When they leave the therapist's office they can do whatever they want
 - Therapists use aversion conditioning with other treatments to ensure that people are abstaining outside of the office

Operant Conditioning

- Skinner → voluntary behaviors are strongly influenced by their consequences
 - Some practice behavior modifications

- Reinforce desired behaviors and withhold unwanted behaviors
- Children with intellectual disabilities → taught to care for themselves with OC
- ASD (autism spectrum disorder) → interact with others
- Schizophrenia → act more rationally
- Positive reinforcers to shape behavior
- Treatment may need to be intensive
 - 3 year olds with ASD, shape their behavior
 - Positively reinforce behavior, punishing bad behavior = good for some
 - People not going under this treatment did not show improvement
- Rewards used vary
 - Reinforcing power of attention or praise = enough
 - Some need token economy
 - An operant conditioning procedure where people earn a token of some sort for exhibiting a desired behavior and can exchange their tokens for various privileges or treats
 - Does this make people dependant on tokens?
 - Deprive people of something they desire and decide which behaviors to reinforce
 - Critics say this has an authoritarian taint
 - Advocates say that some patients ask for this

Cognitive Therapies

- Cognitive revolution → psychological problems
- Therapy that teaches people new, more adaptive ways of thinking, based on the assumption that thoughts intervene between events and our emotional reactions
- Self-blaming and overgeneralized explanations of bad events = integral part of depression
 - Teaches people constructive ways of thinking

Aaron Beck's Therapy for Depression

- Changing people's thinking can change their functioning
- Recurring themes of loss, rejection and abandonment that extended into waking thoughts
- Reverse clients catastrophizing beliefs about themselves, situations and their futures
- Irrational thinking, persuade people to remove dark glasses through which they view life
- Meichenbaum: stress inoculation training
 - Teaching people to restructure their thinking in stressful situations
 - Say positive things to oneself
 - Reduced rate of future depression in college students, children, and teens prone to depression

Aim of Technique	Technique	Therapists' Directives
<i>Reveal beliefs</i>	Question your interpretations	Explore your beliefs, revealing faulty assumptions such as "I must be liked by everyone."
	Rank thoughts and emotions	Gain perspective by ranking your thoughts and emotions from mildly to extremely upsetting.
<i>Test beliefs</i>	Examine consequences	Explore difficult situations, assessing possible consequences and challenging faulty reasoning.
	Decatastrophize thinking	Work through the actual worst-case consequences of the situation you face (it is often not as bad as imagined). Then determine how to cope with the real situation you face.
<i>Change beliefs</i>	Take appropriate responsibility	Challenge total self-blame and negative thinking, noting aspects for which you may be truly responsible, as well as aspects that aren't your responsibility.
	Resist extremes	Develop new ways of thinking and feeling to replace maladaptive habits. For example, change from thinking "I am a total failure" to "I got a failing grade on that paper, and I can make these changes to succeed next time."

Cognitive Behavioral Therapy

- Popular integrative therapy that combines cognitive therapy (changing self-defeating thinking) with behavior therapy (changing behavior)
- Alter way people think and alter how they act
- Make people more aware of their irrational needs, replace it with new ways of thinking, practice the positive approach in everyday settings
- Behavioral change addressed first, cognitive change after
 - Focus on maintaining and preventing relapses
- Emotion regulation is a problem in those with anxiety, depressive disorders
 - CBT program trains them to replace their thinking with more realistic appraisals
- Can be useful for OCD
 - Prevent their compulsive behaviors by relabeling their obsessive thoughts
 - Enjoyable, alternative behavior, practice an instrument, gardening, etc.
 - Most of the participants symptoms disappeared, normalized brain activity on PET scans
- Good treatment for anorexia, bulimia nervosa, depression, and anxiety
- Can be taught and therapy can be done over the internet

Group Therapy

- Therapy conducted with group rather than individuals, permitting therapeutic benefits from group interaction
- Saves therapists time and clients money
- Offers a social laboratory for exploring social behaviors and developing social skills
 - Guides people's interactions as they discuss issues and try new behaviors
- Enables people to see that others share their problems
- Provides feedback as clients try out new ways of behaving

Family Therapy

- Therapy that treats the family as a system, views an individual's unwanted behaviors as influenced by, or directed at, other family members
- Open up communication within the family or help family members discover new ways of preventing or resolving conflicts

Self-Help Groups

- Most support groups focus on stigmatized or hard to discuss illnesses
 - AIDS = 250 times more likely than hypertension patients to be in support groups
- AA has a 12 step program, admit powerlessness, seek help from higher power and from one another, take the message to others in need of it
- Individualistic age → people living alone or feeling isolated = more support groups
 - Alcoholics, addicted, divorced, bereaved
 - Longing for community

Therapy	Presumed Problem	Therapy Aim	Therapy Technique
<i>Psychodynamic</i>	Unconscious conflicts from childhood experiences	Reduce anxiety through self-insight.	Interpret patients' memories and feelings.
<i>Client-centered</i>	Barriers to self-understanding and self-acceptance	Enable growth via unconditional positive regard, genuineness, acceptance, and empathy.	Listen actively and reflect clients' feelings.
<i>Behavior</i>	Dysfunctional behaviors	Learn adaptive behaviors; extinguish problem ones.	Use classical conditioning (via exposure or aversion therapy) or operant conditioning (as in token economies).
<i>Cognitive</i>	Negative, self-defeating thinking	Promote healthier thinking and self-talk.	Train people to dispute negative thoughts and attributions.
<i>Cognitive-behavioral</i>	Self-harmful thoughts and behaviors	Promote healthier thinking and adaptive behaviors.	Train people to counter self-harmful thoughts and to act out their new ways of thinking.
<i>Group and family</i>	Stressful relationships	Heal relationships.	Develop an understanding of family and other social systems, explore roles, and improve communication.

Evaluating Psychotherapies

Is psychotherapy effective?

- Clients perceptions
 - Client testimonies do not persuade psychotherapy's skeptics:
 - People often enter therapy in crisis
 - People attribute their improvement to the therapy
 - Depressed people often get better no matter what they do
 - Clients believe that treatment will be effective
 - Placebo effect - positive expectations
 - Clients want to believe the therapy was worth the effort
 - Self-justification is a powerful human motive, helps explain why therapies = positive testimonials
 - Clients generally speak kindly of their therapists

Clinicians' Perceptions

- Clients justify entering psychotherapy by emphasizing their unhappiness and justify leaving by emphasizing their well being
- Hear little from clients who experience only temporary relief and seek other therapists

Outcome Research

- Controlled research studies to measure effectiveness of psychotherapy
- Typhoid patients improved after being bled convincing physicians that the treatment worked
 - They realized when people got better with bed rest that the bleeding didn't help
- Two thirds of people receiving psychotherapy for nonpsychotic disorders improved
 - No one disputes that optimistic estimate
 - Eysneck also reported similar improvement in those that were untreated, like those on waiting lists
 - Time proved to be a good healer
 - Concluded his sample size was small
- Randomized clinical trials
 - Randomly assign people on a waiting list to therapy or no therapy, evaluate everyone using tests
 - Results of these studies are used for meta-analysis
 - Procedure for statistically combining the results of many different research studies
- First meta analysis has 475 psychotherapy outcome studies
 - Therapy client = better than 80% of untreated patients
- Those not undergoing PT improve, those undergoing therapy are more likely to improve and improve quickly with less chance of relapsing
- Cost effective since you won't go looking for other medical treatment
 - Both reduce long term costs, boost employees psychological well being, lower medical costs, improve work efficiency, diminish absenteeism

Which PT works best?

- Statistical summaries and surveys fail to pinpoint a certain type of therapy
- Little connection between clinician's experience, training, supervision, and licensing and their clients' outcomes
- Some forms of therapy get prizes for particular problems, though there is often an overlapping—or comorbidity—of disorders
 - Behavioral conditioning therapies have achieved favourable results with specific behavior problems
 - Bedwetting, phobias, compulsions, marital problems, and sexual dysfunctions
- Psychodynamic therapy has helped treat depression and anxiety
 - Mild to moderate depression, non-directive or client centered counseling helps
 - New studies confirm cognitive and CBT effectiveness to cope with anxiety, PTSD, depression
- Therapy is most effective when problem is clear cut
 - Phobias, panic or unassertive = hope for improvement
 - Less focused problems such as depression and anxiety benefit short term
- Avoid energy therapies that propose to manipulate invisible energy fields, recovered memory therapies that aim to unearth repressed memories
- National Science and Technology Councils cites Sacred Straight program
 - Well-intentioned programs that have proved ineffective or even harmful
- Evidence based practice
 - Clinical decision making that integrates the best available research with clinical expertise and patient characteristics and preferences

- Therapies should be rigorously evaluated and then applied by clinicians who are mindful of their skills of each patient's unique situation
- Insurer and government support for mental health services requires evidence-based practice

Evaluating Alternative Therapies

Eye Movement Desensitization and Reprocessing (EMDR)

- Therapy adored by thousands but also considered a sham
- Excellent vehicle for illustrating the differences between scientific and pseudoscientific therapy techniques
 - Herbert and seven others said this
- Francine Shapiro developed EMDR while observing anxious thoughts had vanished when her eyes darted about on a walk
- Animal magnetism (hypnosis) by Franz Anton Mesmer
 - New therapy attracted so many devotees so quickly
- Takes no more than three 90 minute sessions, popular and effective
- Efficacious for PTSD patients
- Eye movements relax or distract pts, allow memory associated emotions to extinguish
 - Some think that that isn't the treatment
- Combination of exposure therapy
 - Consolidating traumatic events is what is helping

Light Exposure Therapy

- Seasonal depression caused by those living far from the equator
- Giving a timed daily dose of intense light helped people
- One study exposed some people with a seasonal pattern in their depression symptoms to 90 minutes of bright light and others to a sham placebo treatment
 - 61% of those exposed to morning light had greatly improved, 50% of those exposed to evening light and 32% of those exposed to placebo
 - 30 minutes of exposure to light - relief for more than half receiving morning light therapy
- Conclusion: Morning light does dim depression symptoms for many of those suffering seasonal pattern
- Light therapy sparks activity in a brain region that influences the body's arousal and hormones

How Do Psychotherapies Help People?

Why studies found little correlation b/w therapists' training + experience & clients' outcomes:

- Offer three benefit:
 - Hope for demoralized people
 - People seeking therapy typically feel anxious, depressed devoid of self-esteem + incapable of turning things around.
 - belief : may function as a placebo, improving morale, creating feelings of self-efficacy + diminishing symptoms
 - **A new perspective leading to new behaviours**
 - Every therapy offers people a plausible explanation of their symptoms + an alternative way of looking at themselves or responding to their world
 - Approach life with a new attitude, open to making changes in their behaviours + their views of themselves
 - **An empathetic, trusting, caring relationship**

- According to US National Institute of Mental Health depression. The most effective therapists are empathetic people who seek to understand another's experience
 - Communicate their care + concern to the client
 - Earn the client's trust through respectful listening, reassurance + guidance
 - Ie. **Marvin Goldfried**: found such qualities in recovered therapy sessions from 36 recognized master therapists.
 - Empathetic therapists of both persuasions would help clients evaluate themselves; link one aspect of their life with another & gain insight into their interactions with others
- Therapeutic alliance: bond of trust + mutual understanding b/w a therapist + client , who work together constructively to overcome the client's problem

Culture + Values in Psychotherapy

- All therapies offer hope, + nearly all therapists attempt to enhance their clients' sensitivity, openness, personal responsibility + sense of purpose
- There are differences across therapists; differences become significant when a therapist from one culture meets a client from another.
 - Clients who are immigrants from Asian countries, where people are mindful of others' expectations, may have trouble relating to therapies that require them to think only of their own well-being
 - Highly religious people may prefer + benefit from religiously similar therapists
 - Today's professional training programs also seek to train therapists from diverse backgrounds who can related, with sensitivity to diverse clients

Finding a Mental Health Professional

Seeking a mental health professional:

- APA offers these common trouble signals:
 - Feelings of professionals
 - Deep + lasting depression
 - Self-destructive behaviour ie substance abuse
 - Disruptive fears
 - Sudden mood shifts
 - Thoughts of suicide
 - Compulsive rituals, ie hand washing
 - Sexual difficulties
 - Hearing voices or seeing things that other others don't experience

College Health Centers: generally food starting points, + may offer some free services

Drug Therapies

Psychopharmacology: study of drug effects on mind + behaviour

- Revolutionized the treatment of people with severe disorders, liberating hundreds of thousands from hospital confinement
- Enthusiasm diminishes after researchers subtract the rates of:
 - (1) normal recovery among untreated persons

- (2) recovery due to the placebo effect, which arises from the positive expectations of patients + mental health workers alike
- Even mere exposure to advertising about a drug's supposed effectiveness can increase its effect
 - To evaluate effectiveness of any new drug, researchers give the patients the drug, + the other half a similar appearing placebo
 - Because neither the staff nor the patients know who gets which, this is called **double-blind procedure**

Antipsychotic Drugs

- Revolution in drug therapy for psychological disorders begins with drugs that accidentally calmed down people with psychoses
- *Psychoses*: disorders in which hallucinations or delusions indicate some loss of contact with reality
- **Antipsychotic drugs**: drugs used to treat schizophrenia + others forms of severe thought disorder
- (ie. chlorpromazine sold as Thorazine), dampened responsiveness to irrelevant stimuli
 - Provided the most help to patients experiencing positive symptoms of schizo, ie auditory hallucinations + paranoia
 - Molecules are most similar to molecules of the neurotransmitter dopamine to occupy its receptor sites + block its activity
 - Reinforces idea that an overactive dopamine system contributes to schizophrenia
 - *Tardive dyskinesia*: involuntary movements of the facial muscles (ie. grimacing, tongue, + limbs)
 - Newer generation antipsychotics: risperdonej (Risperdal) & olanzapine (Zyprexa) have fewer of these effects
- **Antianxiety drugs**: drugs used to control anxiety + agitation
 - Ie. Xanax & Ativan
 - Depress central nervous system activity (should not be used in combination with alcohol)
 - Used in combination with psychological therapy
 - Can be addictive → people who stop taking them may experience increased anxiety, insomnia, + other withdrawal symptoms
 - Ie. antibiotic D-cycloserine (an anti-anxiety drug) facilitates the extinction of learned fears in combination with behavioural treatments
 - experiments indicate drug enhances the benefits of exposure therapy
 - helps relieve the symptoms of posttraumatic stress disorder and obsessive-compulsive disorder
- Ie. 'popping a Xanax': first sign of tension can create a learned response; the immediate relief reinforces a person's tendency to take drugs when anxious
- The proportion of psychiatric patients receiving medication during that time increased from 52% to 70%

Antidepressant drugs: drugs used to treat depression, anxiety disorders, obsessive-compulsive disorder, + PTSD

- Several widely used antidepressant drugs are *selective serotonin reuptake inhibitors--SSRIs*
- **(dual-action drugs)**: Some of the older antidepressant drugs work by blocking the reabsorption or breakdown of both norepinephrine + serotonin
 - have more potential side effects ie. drug mouth, weight gain, hypertension or dizzy spells
 - Administering by a patch: bypasses the intestines + liver; helps reduce such side effects

Lithium: prevents my seductive but disastrous highs

- diminishes my depressions
- clears out the wool -

- webbing from any disorder thinking
- slows me down, gentles me out
- keeps me from ruining my career + relationships
- keep me out of a hospital, alive
- makes psychotherapy possible

Reduces bipolar patient's risk of disorder to 1/3 of bipolar patients not taking lithium

Naturally occurring lithium in drinking water correlated with lower suicide rates (across 18 Japanese cities + towns) & lower crime rates (across 27 Texas counties)

Depakote: a drug originally used to treat epilepsy + more recently found effective in control of manic episodes associated with bipolar

Brain Stimulation pg. 685

Electroconvulsive Therapy: controversial brain manipulation through shock treatment

- Introduced in 1938
- the wide-awake patient was strapped to table + jolted with roughly 100 volts of electricity to the brain, producing racking convulsions + brief unconsciousness
- Patient receives a general anesthetic + muscle relaxant (to prevent injury from convulsions) before a psychiatrist delivers 30-60 secs of electrical current
 - w/n 30 min, the patient awakens + remembers nothing of the treatment or of the preceding hours
 - After sessions each week for 2-4 weeks, 80% or more of people receiving ET improve markedly
 - show some memory loss for the treatment period but no discernible brain damage
- An editorial in the *Journal of the American Medical Association* concluded that: 'the results of ECT in treating severe depression are among most positive treatment effects in all medicine.'

How ECT alleviates severe depression?:

- After more than 70 years, no one knows for sure
- Shock-induced brain seizures calm neural centers where overactivity produces depression
- ECT now administered with briefer pulses, sometimes only to the brain's right side + with less memory disruption
- About 4 in 10 ECT-treated patients relapse into depression w/n 6 months
In the minds of many psychiatrists + patients, ECT is a lesser evil than severe depression' misery, anguish + risk of suicide

Noran Endler: reported after ECT alleviated his deep depression, 'a miracle had happened in 2 wks'.

Alternative Neurostimulation Therapies

Two other neural stimulation techniques:

- 1. **Magnetic stimulation**:
 - Depressed moods sometimes improve when repeated pulses surge through a magnetic coil held close to a person's skull
 - **Repetitive transcranial magnetic stimulation (rTMS)**: application of repeated pulses of magnetic energy to the brain used to stimulate or suppress brain activity
 - Sends a painless magnetic field through the skull to the surface of the cortex

- produces no brain seizures, memory loss or other serious side effects aside from possible headaches
 - Performed on wide-awake patients over several weeks
 - **Comparable results to antidepressants: Stimulation energizes the brain's left frontal lobe**
- 2. **Deep-brain stimulation:**
 - Depression has resisted both drugs that flood the body + ECT that jolts at least ½ the brain have benefited from an experimental treatment pinpointed at a brain depression center
 - Helen Mayberg et. al.: focusing on a neutral hub that bridges the thinking frontal lobes to the limbic system
 - Area is overactive in the brain of a depressed or temporarily sad person
 - Area calms when treated by ECT or antidepressants
 - Other researchers are following up on reports that deep-brain stimulation can offer relief to people with OCD + with drug & alcohol addictions

Psychosurgery: surgery removing/destroying brain tissue, is the most drastic + least-used biomedical intervention for changing behaviour

Egas Moniz: developed what became the best-known psycho-surgical operation: the **lobotomy**

- cutting the nerves connecting to frontal lobe calmed uncontrollably emotional + violent patients
- neurosurgeon would shock the patient into a coma; hammers an icepick-like instrument through each eye socket into the brain, then wiggle to sever connections running up to the frontal lobes
- b/w 1936-1954, tens of thousands of severely disturbed people 'lobotomized'
- Effect: decreased person's misery or tension + permanently lethargic, immature, uncreative person.

Psychosurgery: surgery that removes or destroys brain tissue in an effort to change behaviour

Lobotomy: psychosurgical procedure once used to calm uncontrollably emotional or violent patients

- Procedure cut the nerves connecting the frontal lobes to the emotion-controlling centers of the inner brain
- If a person suffers uncontrollable seizures, surgeons can deactivate the specific nerve clusters that cause/transmit the convulsions

Therapeutic Lifestyle Change

- When psychotherapy relieves obsessive-compulsive behaviour, PET scans reveal a calmer brain
- *A human being is an integrated biopsychosocial system*
- Stress affects body chemistry + health
- Our lifestyle--our exercise, nutrition, relationships, recreation, relaxation, religious or spiritual engagement --affects our mental health

Stephen Ilardi: training seminars promoting *therapeutic lifestyle change*

- Human brains + bodies were designed for physical activity + social engagement
- For both children + adults, outdoor activity in natural environments --perhaps a walk in the woods--reduces stress + promotes health
- Simply put: humans were never designed for the sedentary, disengaged, socially isolated, poorly nourished, sleep--deprived pace of 21st-century American life.

Team was also impressed by research showing: regular aerobic exercise rivals the healing power of antidepressant drugs

- Invited small groups of people with depression to undergo a 12 wk training program with the following goals:
 - 1. *Aerobic exercise*: 30 min/day, at least 3x weekly (increasing fitness + vitality, stimulating endorphins)
 - 2. *Adequate sleep*: with a goal of 7-8/hrs a night (increasing energy + alertness, boosting immunity)
 - 3. *Light exposure*: at least 30 min each morning with a light box (amplifying arousal, influencing hormones)
 - 4. *Social connection*: with less alone time + at least two meaningful social engagements weekly (satisfying the human need to belong)
 - 5. *Anti-rumination*: by identifying + redirecting negative thoughts (enhancing positive thinking)
 - 6. *Nutritional supplements*: including a daily fish oil supplement with omega-3 fatty acids (supporting healthy brain functioning)
- 77% of those who completed the program experienced relief from depressive symptoms, compared with 19% in those assigned to treatment-as-usual control condition
- Future research seeks to replicate this striking result of lifestyle change + identifies which of the treatment components (additively or in some combination) produce the therapeutic effect

Preventing Psychological Disorders + Building Resilience

- Psychotherapies + biomedical therapies tend to locate the cause of psychological disorders w/n the person
 - Infer that people who act cruelly must be cruel + that people who act 'crazy' must be 'sick'
 - Attach labels to such people, distinguishing them from 'normal' folks
 - Try to treat 'abnormal' people by giving them insight into their problems, by changing their thinking, by helping them gain control with drugs

Preventive Mental Health: seeks to prevent psychological casualties by identifying + alleviating the conditions that cause them

George Albee: there is abundant evidence that poverty, meaningless work, constant criticism, unemployment, racism + sexism undermine people's sense of competence, personal control + self-esteem

- Stress increases risk of depression, alcohol use disorder, + suicide
- Claimed that support programs alleviate these demoralizing situations
- Preventing psychological problems means empowering those who have learned an attitude of helplessness + changing environments that breed loneliness
- Renewing fragile family ties + boosting parents' + teachers' skills at nurturing children's achievements + resulting self-concept.

Building Resilience

- *Resilience*: personal strength helps most people cope with stress + recover from adversity + even trauma
- More than 9 in 10 New Yorkers, although stunned and grief-stricken by 9/11, did not have a dysfunctional stress reaction
- Most political rebels who survived torture + most people with spinal cord injuries do not later exhibit PTSD

Posttraumatic growth: positive psychological changes as a result of struggling with extremely challenging circumstances + life crises

- le. cancer survivors:
 - Greater appreciation for life
 - More meaningful relationships
 - Increased personal strength
 - Changed priorities
 - Richer spiritual life