Working With Young Adults and Their Families

Michael Fishman, MD
Director of Young Adult Program

Young Adults

• Generally 18-25

• May be older
  – Depends on social and emotional development
Young Adults

- Developmental vulnerability to substance abuse
- Reward-related processes
- Inhibitory control

Reward-Related Processes

- Involved in the response to positive outcomes
- Motivation to achieve these outcomes
- Hypersensitivity to rewards peak during adolescence
Reward-Related Processes

• This peak facilitates reward
  – Sensation-seeking behavior
  – Vulnerability for substance experimentation, use & dependence

Reward-Related Processes

• Subcortical structures

• Dopaminergic projections to medial and orbital regions of frontal cortex
  – Ventral striatum (including nucleus accumbens)
  – Medial prefrontal cortex tracks rewarding outcomes
Reward-Related Processes

- Neurodevelopmental studies of reward processing
- Enhanced sensitivity to reward during adolescence
- Ventral striatal response stronger in adolescents vs. adults
Inhibitory Control

- Ability to suppress behavior
- Protracted development in adolescents
- A gradual linear developmental trajectory

Inhibitory Control

This protracted development hinders the ability of adolescents to control reward-related processes.
Inhibitory Control

- Increased sensation-seeking

- Increased risk for experimentation with drugs & alcohol
Young Adults

- Very difficult to treat
- Complex developmental issue
- Opposition-defiant
- Make their own rules

Young Adults

- Few, if any, family boundaries/family conflict
- Look very anti-social and narcissistic
- Don’t trust – especially authority
- Resent interference in their chosen lifestyle
- Multiple high schools/educational problems
Young Adults

- Emotionally immature
- Chemical impact on brain, insight, judgment
- Family afraid to set boundaries
- Friends/SO willing to undermine treatment
- Families willing to undermine treatment

Effective Treatment for Young Adults

- Try to connect with young adult
- Ages, substance, first used
- Ask about specific drugs, good to know “street names”
- Amounts and frequencies used
Effective Treatment for Young Adults

- Detox
- Medication and behavioral therapy
- Treatment
- Relapse prevention

Effective Treatment for Young Adults

- 90-day vs. 28-day treatment
- Relapse may require return to prior treatment components
- Customized treatment for the young adult
### Effective Treatment for Young Adults

- Resistance, get family to undermine (first 2-3 weeks)
- Parents must learn and reestablish boundaries
- Fear of “kicking them out”
- Resistance phase during detox phase

<table>
<thead>
<tr>
<th>Effective Treatment for Young Adults</th>
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</thead>
<tbody>
<tr>
<td>• Cognitive-behavioral therapy</td>
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<tr>
<td>• Group and individual</td>
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<tr>
<td>• Recognize, avoid &amp; cope with high risk situations</td>
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</tbody>
</table>
Effective Treatment for Young Adults

- Weekly physician session
- Weekly “Fishbowl”
- Specialty groups:
  - EMDR, DBT, Gay & Lesbian Support, Anger, New Path, MSI, Trauma
- Additional individual therapy

Effective Treatment for Young Adults

- Recognize overt/covert craving
- Craving management techniques
- Constructive vs. destructive coping
Effective Treatment for Young Adults

- Multidimensional family therapy (critical)
- Use with family member
- Education, boundaries
- Support from other families
- Family workshop
- Impact letters
- Enabling vs. Support

Effective Treatment for Young Adults

- Motivational interviewing
- A real challenge in young adult treatment
- Try to connect
- Opportunities for education
Effective Treatment for Young Adults

- Motivational incentive
- Level System
- Positive reinforcement to encourage abstinence from drugs

Effective Treatment for Young Adults

- Supportive/structured living evening and weekends
  - Specific and consistent structure
  - RA’s
- Clear therapeutic boundaries
  - Assignments
Effective Treatment for Young Adults

• Individual and group therapy

• Education

• Activities

• 12-Step/Sponsor

Effective Treatment for Young Adults

• Provide connection with young adults in recovery

• Educate patient and family about conscious and unconscious sabotage

• Connect with adults

• Prescription med control

• Drug screens
Effective Treatment for Young Adults

- Explore with patient and family alternatives regarding choices
- School, vocational opportunities, living environment
- Encourage families to use support groups
- Link with aftercare groups
- IOP/MI/TTL

Effective Treatment for Young Adults

- Collusion
- Reinforcing age related stories and rule violations
- Pairing off
Effective Treatment for Young Adults

- Specific and consistent structure
- Level system
- RA’s
- Clear therapeutic boundaries
- Assignments

Effective Treatment for Young Adults

- High risk behavior for HIV, Hepatitis
- STD’s
- Abscess
- Cotton fever
- MRSA
Effective Treatment for Young Adults
Dual Diagnosis

- Family history of psychiatric diagnosis

- Family history of suicide

- Antidepressants used for cravings management

- ReVia / Vivitrol

Effective Treatment for Young Adults
Dual Diagnosis

- Bipolar/ADD/ADHD frequently diagnosed
Effective Treatment for Young Adults
Dual Diagnosis

• Effexor XR and BP

• Depression, Anxiety

• SSRI’s – Early treatment vs. later

• Common side effects

Effective Treatment for Young Adults
Dual Diagnosis

• Psychosis
• Flashbacks
• GHB, Ketamine, MDMA
• Neuroleptics may decrease seizure threshold
• Zyprexa/Risperdal
• Side effects
| Effective Treatment for Young Adults  
<table>
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<tr>
<th>Dual Diagnosis</th>
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<tbody>
<tr>
<td>• Trazadone</td>
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<tr>
<td>• Priapism</td>
</tr>
<tr>
<td>• Remeron</td>
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<tr>
<td>• Seroquel</td>
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| Effective Treatment for Young Adults  
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<tbody>
<tr>
<td>• LD</td>
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<tr>
<td>• Psychological testing/Psychiatric consult</td>
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<tr>
<td>• PTSD</td>
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<td>• Axis II</td>
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</table>
Effective Treatment for Young Adults
Dual Diagnosis

• Educate and normalize attitudes and feelings about meds and diagnosis

• Monitor compliance through self report

• May need more treatment for eating disorder

Common Drug Trends/
Prescription Drug Use
Cannabinoids

- Dependence & mental disorders
- Psychosis
- Does not substantially increase mortality
- ? Gateway drug

Cannabinoids

- Sativa – mental, cerebral high
- Indica “couch-lock” high
- Start at $20/gm
- Withdrawl syndrome
- Spice/Salvia
Alcohol

- Withdrawal can be life threatening
- Frequently mixed with other drugs
- Central nervous system depressant
- Blackouts
- Disinhibition

Alcohol

- FDA-approved medications
  - Naltrexone / Vivitrol
  - Acamprosate
  - Disulfiram (Antabuse)
Other Drugs

- Tobacco
- Hallucinogens / Designer hallucinogens
- Cocaine

Other Drugs

- Methamphetamine / Bath Salts
- Inhalants
- Heroin, poppy pods, poppy seeds
- DXM, Diphenhydramine
- Kratum
Prescription Drugs

- Estimated 20% of U.S. population abused prescription drugs
- Estimated 10-11% addicted
- Silk Roads

Prescription Drug Abuse/Dependence

- Muscle relaxants
- Antidepressants
- Atypical neuroleptics
- Steroids
Opioid Painkillers

• Naturally occurring

• Semi-synthetic

• Synthetic

Opioid Painkillers

• Most prevalent:
  • OC

  • Hydrocodone

  • Roxicodone 15 mg, 30 mg
Opioid Painkillers

• OC – Bypass sustained release

• Generics – matrix

• Escalating tolerance/withdrawal

• OD

Opioid Painkillers

• Duragesic – eaten

• Subutex/suboxone

• Combined with CNS depressants
Opioid Painkillers

- Withdrawal /≠ Addiction
- Methadone maintenance
- Subutex/suboxone maintenance
- Diversion

Opioid Painkillers

- Dilaudid – water soluble
- Internet – Norco
- Dextromethorphan (demorphan)
Opioid Painkillers

- Paregoric
- Lomotil – diphenoxylate
- Withdrawal – not life threatening
Non-opioid Painkillers

- Tramadol – Ultram
- Internet
- Seizures

Naltrexone / Vivitrol

- Alternative to Suboxone maintenance
- Must be completely detoxed
- Precipitation of withdrawal
- FDA approved for alcohol and opioid dependence
Alcohol and Opioid Drugs Excessively Stimulate the Dopamine Reward System

- Alcohol stimulates the release of β-endorphins
- β-endorphins and opioids facilitate the excessive release of dopamine
- Over time, repeated exposure to escalating amounts of alcohol and opioid drugs produce tolerance
- Higher quantities of alcohol or opioids are required to stimulate the release of dopamine and thereby achieve the pleasure experienced during initial alcohol or opioid use


Comprehensive Treatment Should Target Both Regions of the Brain That Are Altered by Opioid or Alcohol Dependence

Dependence Alters 2 Regions of the Brain

- The cortex is a target for counseling
  - Decision making
  - Thinking
  - Reasoning
  - Learning
  - "Will power"

- The limbic region is a target for pharmacotherapy
  - Basic drives
  - Euphoria

CNS Depressants

- Barbiturates
- Benzodiazepines
- Non-benzodiazepines

CNS Depressants – Barbiturates

- Butalbital
- Phenobarb
- Tuinal
- Seconal
CNS Depressants – Benzodiazepines

• In general – shorter half life = more addicting

CNS Depressants – Benzodiazepines

• Xanax – alprazolam

• Klonopin – Clonazepam

• Combined with alcohol/other drugs
  Black outs
CNS Depressants – Non-Benzodiazepines

• Ambien – Zolpidem

• Highly addicting

CNS Depressants – Non-Benzodiazepines

• Sonata – Zaleplon

• Lunesta – eszopiclone

• ? lower risk of abuse
CNS Depressants

- Tolerance
- Withdrawal can be life threatening

Stimulants

- Used to treat asthma/respiratory problems
- Obesity
- Neurological disorders
- ADD/ADHD
- Narcolepsy
- Non-responsive depression
Stimulants

- Elevates dopamine, norepinephrine
- Elevated BP & Heart rate
- Constricts blood vessels
- Increases blood glucose
- Opens airways

Stimulants

- Abused for performance enhancement
- Abused for the euphoria (high)
Stimulants

• Orally
• Crushed, chewed
• Snorted
• Dissolved/Injected

Stimulants

• Amphetamines –
  • Adderall/Dexedrin/Vyvanse
  • Dextromethamphetamine – desoxyn
Stimulants– Non-amphetamine

- Ritalin – methylphenidate
- Daytrana – methylphenidate
- Phenyl-tertiary-butylamine
- Provigil – modafinal
- Cylert – pemoline

Stimulants – Amphetamine

- Adderall/Adderall XR
- Dexedrine/Dexedrine spansules SR
- Vyvanse Lisdexamfetamine – dextroamphetamine
Muscle Relaxants

• Soma – carisoprodal

• Flexeril – cyclobenzaprine
Antidepressants

- Wellbutrin – Bupropion
- Trazodone
- SSRIs – rarely

Atypical Neuroleptics

- Seroquel
Others

• Steroids
• Phenergan – promethazine
• Benadryl
• Coricidin (skiddles)

2011 Monitoring the Future Survey

Areas of Concern
Areas of Concern

- While marijuana use declined in the late 1990s and early 2000s, 5-year trends are showing significant increases among 10th and 12th graders for daily, current and past year use.
- This year, 12.5% of 8th graders, 28.8% of 10th graders, and 36.4% of 12th graders reported past-year marijuana use.
- Although there were no increases between 2010 and 2011, it appears that marijuana use continues to exceed cigarette use in these students. In 2011, 22.6% of high school seniors used marijuana in the past 30 days compared with 18.7% who smoked cigarettes.
This year’s survey captured the use of synthetic marijuana, also known as K2 or “Spice,” among high school seniors for the first time.

Almost 1 in 9, or 11.4%, of high school seniors reported using Spice in the past year.

After marijuana, prescription and over-the-counter medications account for most of the top illicit drugs abused by 12th graders in the past year.
OxyContin use remains an area of concern with past year nonmedical use holding steady across 8th, 10th, and 12th graders for the past 5 years.

The abuse of stimulants is also cause for alarm.

For example, 8.2% of high school seniors reported past year use of Amphetamines in 2011, up from 6.6% in 2009.
Prescription and Over-the-Counter Medications Account for Most of the Commonly Abused Drugs: Past Year Use Among High School Seniors

Figure 1. Rates of Prescription Opioid Sales, Overdose Deaths, and Admissions to Addiction Treatment (1999-2010)

Figure 2. Consequences of Prescription Drug Abuse

For every 1 death there are ...

- 4 treatment admissions for abuse
- 32 emergency dept visits for misuse or abuse
- 130 people who abuse or are dependent
- 826 nonmedical users


Figure 3. People Who Abuse Prescription Opioids Get Drugs From a Variety of Sources

- Obtained free from friend or relative 55%
- Prescribed by one doctor 17.3%
- Bought from friend or relative 11.4%
- Took from friend or relative without asking 4.8%
- Got from drug dealer or stranger 4.4%
- Other source 7.1%

Source: CDC, Vital Signs, 2011.
In Conclusion

• Treatment of the young adult presents many challenges.
• Many continue to use despite devastating consequences.
• Prolonged drug exposure on the developing brain is damaging.
In Conclusion

• Addiction is a brain disease that affects multiple brain circuits:
  – Reward & motivation
  – Learning & memory
  – Inhibitory control over behavior

In Conclusion

• Effective treatment for the young adult incorporates many components:
  – Detox
  – Behavior containment
  – Learn to maintain a drug free lifestyle
  – Learn to function in family & society
In Conclusion

• Attends to multiple needs of the young adult
• Remaining in treatment for adequate period of time is critical

In Conclusion

• Individual / Group therapy
• Medications combined with counseling
• Detox by itself does little to change long-term use
• *Treatment does not need to be voluntary to be effective
• Lapses are common during treatment
• Relapse prevention
### Comparison of Relapse Rates Between Drug Addiction and Other Chronic Illnesses

**Percentage of Patients Who Relapse**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Relapse Rate</th>
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<tbody>
<tr>
<td>Type 1 Diabetes</td>
<td>30 to 50%</td>
</tr>
<tr>
<td>Drug Addiction</td>
<td>40 to 60%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>50 to 70%</td>
</tr>
<tr>
<td>Asthma</td>
<td>50 to 70%</td>
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**Why is addiction treatment evaluated differently? Both require ongoing care.**

- Hypertension Treatment
- Addiction Treatment
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FURTHER INFORMATION

To contact one of TRC’s Intake specialists
Please call:
800-445-4232

OR
Visit our website at:
talbottcampus.com
References

