

DEFENSE CENTERS OF EXCELLENCE

For Psychological Health & Traumatic Brain Injury

Today's webinar is:

Substance Abuse and TBI: Magnitude, Manifestations, Myths and Management

Jan. 24, 2013, 1-2:30 p.m. (EST)

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Webinar Overview

Substance Abuse and Traumatic Brain Injury

Substance abuse (SA) frequently co-occurs with traumatic brain injury (TBI). SA increases the risk for having a TBI, and TBI is a risk factor for developing a substance use disorder.

Negative outcomes associated with having both SA and TBI include medical problems (e.g., cirrhosis, cancers), psychiatric/behavioral problems, unemployment and familial discord.

Failure to assess and treat SA following TBI is associated with poorer long-term outcomes. This webinar will:

- Examine the co-occurrence of TBI and SA
- Describe screening and assessment methods for identifying patients with TBI and SA
- Identify interventions for patients with TBI and SA
- Review challenges related to screening and intervening with patients with TBI and SA



Substance Abuse and TBI: Magnitude, Manifestations, Myths and Management

Charles H. Bombardier, Ph.D. Department of Rehabilitation Medicine University of Washington School of Medicine Webinar for the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury Jan. 24, 2013

Required Disclosure

I have no relevant financial relationships and do not intend to discuss the off-label/investigative (unapproved) use of commercial products/devices.



Disclosure

I am a paid motivational interviewing consultant and trainer for VA hospitals and for EMD Serono

Overview

- Prevalence of substance abuse before and after TBI
- Harms (and benefits?) of substance use before, at the time of, and after TBI
- Myths and barriers to improved care
- Substance abuse screening
- Intervention options
- Summary

Prevalence of Alcohol Use and Problems Before, At and After TBI

DSM-IV Psychiatric Disorders Before TBI

| Diagnosis | Before TBI (%) | | | |
|--------------|----------------|-----------|--|--|
| | U.S. | Australia | | |
| MDD | 17 | 17 | | |
| Dysthymia | 1 | 0 | | |
| Bipolar | 0 | - | | |
| PTSD | 6 | 4 | | |
| OCD | 1 | 1 | | |
| Panic | 4 | 1 | | |
| GAD | 1 | 5 | | |
| Phobia | 4 | 0 | | |
| Alcohol/Drug | 40 | 41 | | |
| Total | 51 | 52 | | |

References: Hibbard et al., JHTR 1998; Whelan-Goodinson et al., JHTR 2009

Substance Use Before TBI

| Substance Use Diagnosis | Before TBI |
|----------------------------|---------------|
| Alcohol Abuse | 7% |
| Alcohol Dependence | 29% |
| Drug Abuse | 5% |
| Drug Dependence | 12% |
| Totals* | 41% |

Other Drug Use Before TBI

| Type of drug | <u>Self-report*</u> | Toxicology ⁺ | | |
|--------------|---------------------|--------------------------------|--|--|
| Cocaine | 10% | 13% | | |
| Marijuana | 25% | 24% | | |
| Amphetamines | 7% | 9% | | |
| Other | 5% | | | |
| Total | 31% | 38% | | |

Pre-TBI Alcohol and Drug Use



DSM-IV Psychiatric Disorders Before and After TBI

| Diagnosis | Before TBI (%) | | After TBI (%) | | |
|-----------------|----------------|-----------|---------------|-----------|--|
| | U.S. | Australia | U.S. | Australia | |
| MDD | 17 | 17 | 61 | 45 | |
| Dysthymia | 1 | 0 | 3 | 1 | |
| Bipolar | 0 | - | 2 | - | |
| PTSD ↑ | 6 | 4 | 19 | 14 | |
| OCD | 1 | 1 | 15 | 1 | |
| Panic ↑ | 4 | 1 | 14 | 16 | |
| GAD ↑ | 1 | 5 | 9 | 17 | |
| Phobia ↑ | 4 | 0 | 10 | 7 | |
| Alcohol/Drug 🕹 | 40 | 41 | 28 | 21 | |
| Total | 51 | 52 | 80 | 65 | |

Reference: Hibbard et al., JHTR 1998; Whelan-Goodinson et al., JHTR 2009

Substance Use After TBI

| Substance Use Diagnosis | Before TBI | After TBI | New Onset | Current |
|----------------------------|---------------|-----------|--------------|---------|
| Alcohol Abuse | 7% | 3% | 2% | 2% |
| Alcohol Dependence | 29% | 14% | 1% | 10% |
| Drug Abuse | 5% | 2% | 0% | 2% |
| Drug Dependence | 12% | 7% | 3% | 5% |
| Totals* | 41% | 21% | 3% | |

Longitudinal Changes in Alcohol and Drug Variables After TBI



Reference: Ponsford et al., Brain Inj 2007

Longitudinal Changes in Alcohol and Drug Variables After TBI



Reference: Ponsford et al., Brain Inj 2007

Post TBI Drugs Used

- Marijuana
- Stimulants
- Opioids
- Cocaine
- Polydrug

9 (45%) 4 (20%) 3 (15%) 1 (5%) 3 (15%)

Predictors of Heavy Drinking One Year After TBI

- Male
- Younger age
- History of heavy drinking or problems*
- Diagnosis of depression after TBI
- Better physical functioning
- More likely to be employed

*Only 5-7% of those without prior history will drink heavily after TBI

Harm Associated with Alcohol Use and Problems Before, At and After TBI

Harm from Pre-injury Alcohol Abuse

Until 1994

- More severe brain lesions (Ronty et al., 1993)
- Increased risk of mortality (Ruff et al., 1990)
- Poorer neuropsychological outcomes (Dikmen et al., 1993)
- Emotional/behavioral deterioration (Dunlop et al., 1991)
- Failed community integration (Burke et al., 1988)
- Recurrent TBI (Salcido & Costich, 1993)

Harm from Pre-injury Alcohol Abuse Since 1994

- Medical/neurological outcome -- inconclusive
- Neuropsychological outcomes -- probably not related
- Greater post-concussive symptoms
- Functional outcomes -- yes
 - Lower employment and independent living status
 - Lower satisfaction with life
 - 4-7 times more likely to die from suicide
 - Greater one-year prevalence of major depression

Pre TBI Alcohol Dependence and Post TBI Depression



Note: 45% versus 70% Reference: Bombardier, Fann et al., JAMA 2010

Harm from Intoxication at TBI

- Poorer short-term outcomes in TBI
 - Greater initial-injury severity on GCS*
 - Longer coma and agitation
 - Less cerebral blood flow
 - Greater cerebral atrophy at 3 months
 - Lower cognitive status at discharge
- Greater cognitive impairment in 4 of 6 studies
- Persistent post-concussive symptoms

Note: GCS = Glasgow Coma Scale References: Cunningham et al., 2002; Corrigan 1995; Edna, 1982; Sparadeo & Gill, 1989; Bombardier & Thurber,1999; Kaplan & Corrigan, 1992; Ruff et al., 1990; Turner et al., 2006; Alexander et al., 2004; Wilde et al., 2004; Brooks et al., 1989; Kelly et al., 1997; Tate et al., 1999; Prigatano & Gale, 2010

Intoxication and Recurrent TBI

- Finnish population study
- 236 survivors of TBI
- 21-year follow-up
- Alcohol-related first TBI were more than 4 times more likely to sustain a recurrent TBI
- 6% vs. 25%



Figure 1. Kaplan-Meier curves showing proportions of patients remaining without TBI recurrence according to alcohol involvement during the first injury.

Benefits of Intoxication at TBI?

Alcohol has some potentially neuro-protective effects in animal models of TBI

- Inhibits excito-toxicity
- Normalization of glucose metabolism
- Normalization of cerebral blood flow

Benefits of Intoxication at TBI?

| <u>Author</u> | <u>n</u> | Effect on mortality |
|---------------|----------|----------------------------------------------------------------|
| Tien 2006 | 3,675 | 0-230 lowest >230 highest 0 intermediate |
| Salim 2009 | 38,019 | Lower in alcohol positive group |
| Shandro 2009 | 836 | Trend toward lower mortality in 101-230 and > 230 groups |

Harm From Drinking After TBI

- 38% report easily affected by alcohol
- More impaired event-related potentials
- Increased probability of acute caregiver distress
- Additive or multiplicative influence on alcohol effects?

Speculative Effects of Alcohol Use After TBI

TBI Alcohol

Cognitive impairments Sleep problems Balance problems Sexual dysfunction

Persistent Cognitive Effects of Heavy Social Drinking

- Heavy alcohol consumption for as little as 1 year can cause measurable cognitive impairments that are roughly dose dependent
- Drinking 5-6 U.S. standard drinks per day results in measureable *cognitive inefficiencies* when sober
- 7-9 drinks per day results in *mild cognitive deficits* when sober
- 10 or more drinks per day results in *moderate cognitive deficits* when sober (equivalent to those who were diagnosed with alcoholism)

Effects of TBI + Alcohol on Cognition?

- Attention, processing speed, memory, executive functioning commonly impaired after TBI
- Peterson's Hypothesis: the pattern of acute alcohol-induced neuropsychological impairment is analogous to that characteristic of patients suffering from pre-frontal damage
- Participants at a Blood Alcohol Level (BAL) of .10 performed more poorly on measures of planning, verbal fluency, memory and complex motor control compared to participants at lower dosages

Effect of Alcohol Intoxication on Executive Functioning in Bar Setting

Table 2

Correlations among values for mean blood alcohol concentration (BAC), second run WCST categories completed (CC), perseverative errors (PE) and non-perseverative errors (NPE), Barratt Impulsivity Scale Version 11 (BIS-11), Alcohol Use Disorders Identification Test (AUDIT), Frontal Systems Behavior Scale (FrSBe), and Age.

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|---|--------------------|--------------------|----------------------------|--------|-------|----------|------|
| 1. BAC | _ | —.29 ^{**} | .34** | .19 | .28** | .35** | .24* | .23* |
| 2. CC | | - | —.63 ^{**} | —. 65 ^{**} | —.13 | 04 | 05 | .02 |
| 3. PE | | | - | .24* | .11 | .10 | —.(| .18 |
| 4. NPE | | | | | .12 | 00 | | 01 |
| 5. BIS-11 | | | | | _ | .41** | * | .11 |
| 6. AUDIT | / | WC | יפיד | | | - | Frontal | 13 |
| 7. FrSBe | | Cotoo | | V | VCST | | Systems | |
| 8. Age | | | | Doro | V CUI | | Behavior | r |
| * | | Acn1 | evea | | | | | · |
| * <i>p</i> <.05. | | | | E | Errors | | Scale | |
| ** <i>p</i> <.01. | | | | | | | | |

Additive Effect with Regard to Speed of Processing



Interaction Effect with Regard to Delayed Word Recall



TBI and Alcohol Effects on Sleep

- 30-70% of people with TBI report sleep problems, especially insomnia, daytime sleepiness, fatigue
- Overall effects of alcohol intoxication
 - Greater sleepiness, poorer sleep quality, less sleep continuity, disrupted sleep architecture
- First half of the night
 - Less time to fall asleep; longer REM latency and lower % REM sleep
- Second half of the night
 - Increased wakefulness, light sleep, REM sleep

Alcohol Sleep and Next Day Cognitive Functioning

Healthy heavy drinkers; placebo vs. BAL = 110

- Poor sleep:
 - Decreased sleep efficiency and REM sleep
 - Increased wake time and daytime sleepiness
- Next day impaired cognition
 - Poorer sustained attention and slower speed of information processing

• No differences based on alcohol type or sex
TBI and Alcohol Effects on Body Sway and Balance

- Up to 30% of people with TBI report impaired balance and coordination
- Blood alcohol concentration (BAC) of .10 or greater resulted in significantly increased body sway (total area) with eyes open or closed compared to BAC < .08
- Dynamic sway measured during tandem walking paradigm was impaired after minimal dose of alcohol in 8 of 9 subjects; not detected on static sway measure

Alcohol and Balance (Sway)



TBI and Alcohol Effects on Sex

- 36-54% of people with TBI report sexual changes (mostly lower frequency, drive, ability)
- Regular alcohol use results in:
 - Decreased testosterone levels
 - Decreased interest in sex
 - Decreased sexual performance
 - Decreased sexual satisfaction

Myths and Potential Barriers to Improved Care Barriers to Integrated Interventions

- U.S. rehabilitation psychologists
- 79% reporting treating people with substance abuse issues
- More than 50% reported their training in substance abuse treatment as inadequate
- Typically refer to self-help groups and teach cognitive-behavioral coping skills

They must admit they are "alcoholic"

- Common in AA (but they took a while to get there)
- Generates resistance in medical settings where people are not seeking help for addiction
- Label is unnecessary for recovery
- Wanting to change behavior is key

Myth 2 Not accepting help is "denial"

- If this is denial then most of us have it, it's the "American" way. (Is it British?)
- Not wanting help does not mean not wanting to change.
- Unnecessarily pathologizes a common preference.
- Many want to change, but don't want professional help.

Window of Opportunity After TBI



Preferred Means of Change



Denial is an alcoholic personality trait

- Decades of research have not produced evidence of major personality differences between alcoholics and non-alcoholics
 - No differences between alcoholics and controls on use of defense mechanisms
 - Follow-up study of alcoholics found that those with greater denial had lower rates of rehospitalization and higher rates of treatment completion

Denial must be confronted

- Research shows denial is *interpersonal*
 - Confronting and teaching increase resistance (ever been told you "need to change?")
 - Empathic listening reduces resistance
- Greater confrontation is correlated with *increased* drinking one year later
- Therefore, reducing resistance is the health care professional's responsibility

Formal treatment is always necessary

- Specialized treatment is often inaccessible
- Advice can be effective
- Brief treatment is often as effective as extended treatment
- Most alcoholics (78%) who recover <u>change on their own</u>, without professional counseling or help of any kind

Myth 6 Goal must be lifetime abstinence

- Rejected by most people at least at first
- Not necessarily true for people with milder problems found in medical settings
- Choice of goals increases adherence to recommendations
- "One day at a time"
- Try a "drinking holiday" or "warm turkey" approach instead

Substance Abuse Screening

Why Screen?

- Past problems are predictive of future problems
- Blood alcohol level and other biological measures are useful but have limited sensitivity
- "Clinician judgment" is at best incorrect and at worst biased
 - 23% acutely intoxicated not recognized
 - Half of chronic alcoholics not recognized
 - 26% falsely identified as alcoholic
 - Clinicians biased by gender, appearance, socioeconomic status, insurance status

Screening: When? What?

- When to screen?
 - Acute predicting who needs monitoring or early intervention
 - Post-acute identifying relapse
- What to screen?
 - Lifetime alcohol problems or dependence
 - Recent alcohol consumption

Early Screening: Predicting Who Will Not Have Problems

- Screening identifies the 50% of cases you do not have to worry about
- Only 6-7% of those who were abstinent or normal drinkers before TBI develop problems after TBI
- 30% of those with heavy drinking <u>or</u> problems relapse within one year
- 62% of those with heavy drinking <u>and</u> problems relapse within one year

Substance Use Screening

How to do it

- Screen everyone
- Imbed screening
- Frame as part of health and recovery
- Use a neutral, nonjudgmental tone
- Ensure confidentiality
- Use valid measures

How not to do it

- Screen selectively
- Screen separately
- Frame as a special moral or personality issue
- Remain skeptical due to alcoholic denial
- Provide no reassurance
- Use "clinical judgment"

Choosing a Screener

- CAGE: good old standard, easy to recall, many studies document validity
- RAPS4: possibly better than CAGE with minority persons and women
- TICS: shortest and covers drug use, but only one validity study
- AUDIT: longer, includes consumption, potentially more sensitive to non-dependent, many translations available

Screening for Abuse/Dependence

| <u>Measure</u> | <u>Cut</u> | <u>Sensitivity</u> | Specificity |
|----------------|------------|--------------------|-------------|
| • CAGE | >1 | 84% | 90% |
| • RAPS4 | >0 | 93% | 87% |
| • TICS | >0 | 81%* | 81%* |
| • AUDIT | >7 | 74% | 89% |
| • SMAST | >2 | 100%* | 85%* |

Short Screeners: CAGE

- C: Have you ever thought you should **cut down** on your drinking?
- A: Have you ever been **angry** or irritated at people criticizing your drinking?
- **G**: Have you ever felt **guilty** about your drinking?
- E: Do you ever have a drink the first thing in the morning to steady your nerves or get rid of a hangover (eye-opener)?

Score: One or more = "suspicious," 2 or more = "positive"

Short Screeners: TICS

- In the last year have you ever drank or used drugs more than you meant to?
- Have you ever felt you wanted or needed to cut down on your drinking or drug use in the last year?

Screening for Unhealthy Consumption

AUDIT-C

Please circle the answer that is correct for you.

| 1. How often do you have a drink containing alcohol? | | | SCORE | | |
|-------------------------------------------------------------------------------------------|--------------------------|-------------------------------|------------------------------------|----------------------------------|--|
| Never (0) | Monthly or less (1) | Two to four times a month (2) | Two to three times per week (3) | Four 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 to 9 (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) | Two to three times per week (3) | Four or more times a week (4) | |
| TOTAL SCORE Add the number for each question to get your total score. | | | | | |

Maximum score is 12. A score of \geq 4 identifies 86% of men who report drinking above recommended levels or meets criteria for alcohol use disorders. A score of > 2 identifies 84% of women who report hazardous drinking or alcohol use disorders.

Intervention Options

Why Intervene within Rehabilitation?

- Only 15-25% of people with SUDs get help
- Acute rehabilitation is a teachable moment
 - The best window of opportunity for initiating rehabilitation for alcohol problems may be when a patient is still hurting from the acute effects of an alcohol-related injury, but has become aware enough to understand and remember what his or her rehabilitation team is advising. Waller, 1990 (paraphrased)
- Poor access to specialized care (insurance, stigma)
- Lack of interest in specialized care
- Poor referral follow-through rates
- Potential efficacy (you *can* do it!)

Intervention Options

- Primary, secondary and tertiary prevention
- Timing: acute, post-acute
- Delivery options: in-person, telephone, Internet-based, Smartphone apps
- Intervention models: treat within rehabilitation, brief intervention and referral, stepped-care, immediate specialist referral
- Goals: abstinence, relapse prevention, moderation, harm reduction, referral to treatment

Core Components of Effective Interventions

- Enhancing social support
- Goal setting
- Help with action planning, making changes
- Modeling and rewarding healthy behavior
- Reviewing ways to cope with the triggers that lead to drinking
- (Aspirational) Matching a patient to therapies that address their greatest need

Intervention Toolbox

- Education (generic or TBI-specific)
- Screening
- Advice
- Self-help manuals
- Brief Interventions (MI, MET, SBIRT, \$\$ incentives)
- Coping and social skills training
- Relapse prevention
- 12-Step facilitation
- Community Reinforcement Approach

Matching Treatment to Drinker Type

| | Education Advice | MI | Relapse Prevent | AA or Formal Treatment |
|---------------------|---------------------|----|--------------------|------------------------------|
| Dependent 18% | X | X | X | X |
| Abuse 21% | X | X | | |
| In Remission 15% | X | | X | |
| Normal/Non 46% | X | | | |

Education Intervention "Good"

Figure 1

Effects of High-Risk Drinking



High-risk drinking may lead to social, legal, medical, domestic, job and financial problems. It may also cut your lifespan and lead to accidents and death from drunk-en driving.

Biphasic Effect of Alcohol "Drinking Less Is Better"



Tailored Education Intervention "Better"

Substance Abuse Issues after Traumatic Brain Injury

Living with Brain Injury







Alcohol following Brain Injury



Many Online TBI Educational Resources

- Brain Injury Rehabilitation Trust, UK
 - http://www.thedtgroup.org/media/77879/B IRT_Alcohol.pdf
- Ohio State University TBI Network
 http://www.tbinetwork.org/
- TBI Model System KT Center
 - http://www.msktc.org/tbi/factsheets/Alcoh ol-Use-After-Traumatic-Brain-Injury

Social Norms Interventions

- Drinking is influenced by youth (mis)perceptions of peer drinking. If misperceptions can be corrected, young people may drink less.
- Web and individual face-to-face feedback are probably effective in reducing alcohol misuse.
- Web feedback impacted across a broader set of outcomes and is less costly so therefore might be preferred.
- Mailed and group feedback, and social norms marketing campaigns were not effective.

Education Intervention "Best"

Personalized Social Norms Feedback

Feedback



Your Consequences Profile

You report that you have experienced consequences from drinking. Take a look at the chart below to see your consequences, and how many other female BU freshman students have experienced these consequences.



Personalized Feedback

Alcohol consumption How much alcohol do you typically use compared to other American males/females?

| You drink | 47 | standard drinks during a typical |
|-----------|----|----------------------------------|
| week. | | |

You drink more than <u>95</u> percent of American males.



bar graph

Estimated cost per year for alcohol _____\$2,444___
Personalized Feedback

Level of intoxication Blood alcohol level is a measure of how high or drunk you get when you do drink.

| Your blood alcohol level on a typical day was80 | Typical day | | | | 1 | | |
|------------------------------------------------------|---------------|---|-----|-----|-----|-----|-----|
| Your blood alcohol level on a heavy day was100 | Heavy day | | | | | | |
| Your blood alcohol level on the heaviest day was 235 | Heaviest day | | | | 6 | | |
| Blood alcohol level, day of injury was _180 | Day of injury | | | | 2 | | |
| | | 0 | 100 | 200 | 300 | 400 | 500 |

normal impaired blackouts unconscious fatal social

Personalized Feedback

Risk Factors The higher your risks, the greater your chances are of developing serious alcohol related problems.

Tolerance level: Losing your physical warning signals.

Family risk: High risk for alcohol problems can be inherited.

Age at onset: Problems early in life put you at higher risk.

Physical dependence: Physical signs of addiction to alcohol.

Other drug risk: Using drugs increases the risk of addiction. Number of drugs reported: 3 Toxicology screen: cocaine, marijuana



Social Norms Feedback

unitcheck

alcohol you nking is risky similar

What does Unitcheck do?

See how many units are in the alcohol you drink.

Check if the amount you're drinking is risky for your health.

See how many people drink a similar amount to you.

Enter your email addre



What if I don't drink?

We know that not all people drink alcohol. This site also provides information to those who don't drink so even if you don't consume alcohol please log on.

How safe is my information?

All information you provide is stored safely and securely. The questions do not take long to complete. The questionnaire is anonymous and confidentiality is assured.

Other Personalized Feedback Resources

- http://rethinkingdrinking.niaaa.nih.gov/
- http://www.alcoholscreening.org/Home. aspx

Physician's Guide to Advice

- Ask about alcohol use
- Assess for alcohol-related problems
- Advise appropriate action
- Monitor patient progress

How to Give Advice

Elicit

• Find out what they already know, have done or tried

Provide information with permission

- Give an unambiguous recommendation
- Avoid threats or moralizing
- Use neutral, non-personal language: "What usually happens to people is ..."

Elicit

- Ask for feedback: "What do you make of all this?"
- Reinforce with educational booklet

Efficacy of Physician Advice

Table 2.

Primary Outcome: Changes in Alcohol Use Between Groups After Brief Intervention (N = 226)

| Alcol | hol Use | Treatment n = 114 % (n) | Control n =112 % (n) | <i>t</i> Score | <i>P</i> Value | | |
|-----------------------------------------------|-----------------------------|----------------------------|-------------------------|----------------|----------------|--|--|
| Consumes ≥3 drinks per day in previous 7 days | | | | | | | |
| | Baseline | 39 (45) | 46 (51) | 0.92 | NS | | |
| | 6 mo | 18 (20) | 30 (34) | 2.08 | .02 | | |
| | 12 mo | 17 (19) | 35 (39) | 2.98 | .002 | | |
| | 24 mo | 14 (16) | 30 (34) | 2.80 | .01 | | |
| | 36 mo | 14 (16) | 35 (39) | 3.53 | .001 | | |
| | 48 mo | 15 (17) | 20 (22) | 0.70 | NS | | |
| | Overall <i>P</i> < .001* | | | | | | |
| Drink: previe | s consumed in ous 7 days | Mean No. (SD) | Mean No. (SD) | | | | |
| ~ | Baseline | 16.2 (11.2) | 18.3 (12.1) | 1.36 | NS | | |
| 8 | 6 mo | 9.4 (10.3) | 14.3 (11.1) | 3.42 | .001 | | |

Reference: Grossberg et al., Ann Fam Med. 2004 2(5): 474–480.

Motivational Interviewing



Stephen Rollnick Pip Mason **Chris Butler** Health Behavior Change A GUIDE FOR PRACTITIONERS CHURCHILL LIVINGSTONE

Process of Motivational Interviewing



Empathy, Autonomy, Collaboration, Self-Efficacy

Effect of Motivational Interviewing in Hospitalized Trauma Patients



Efficacy of Brief Opportunistic Interventions in Hospitals

- Brief counseling interventions (1-3 sessions)
- 14 studies, 4,041 mainly male participants
- Brief Interventions (BI) resulted in greater reductions in alcohol consumption compared to controls at six months but not one year.
- BI resulted in fewer deaths at six months
- Assessment alone may reduce drinking

Single Session MI Not Effective in TBI

- Three trials, all using a single session of MI have not demonstrated a significant impact on adherence to substance abuse treatment or drinking behaviors
- Future studies and clinical work should not rely on a single session

Relapse Prevention

- The patient has stopped drinking. Engage them by saying you want to help them put "teeth" into their plans.
 - Identify high-risk situations for relapse
 - Learn other ways to cope with risky situations
 - Teach coping with urges and craving
 - Work toward balanced lifestyle

Relapse Prevention Booklets



12-Step Programs

- For people willing to attend, Alcoholics Anonymous (AA) plus facilitation produces the best long-term abstinence rates
- About 20% are interested in AA
- 12 steps have been rewritten in more concrete language for people with TBI
- Letter to sponsor exists explaining TBI
- With the person's permission, invite AA members to the hospital to meet them, arrange for transportation to local meetings after discharge

Self-help Options

- Alcoholics Anonymous (AA) has helped millions of people. There are meetings in most towns and cities (http://www.aa.org/).
- Moderation Management (http://www.moderation.org/) and Smart Recovery (http://www.smartrecovery.org/) are alternatives to AA that do not use the 12-step model.

Community Reinforcement Approach with Concerned Others

- Indicated for people with severe problems who refuse treatment and who have concerned family or friends
- Train spouse or parents in behavioral techniques, e.g., positive reinforcement, negative reinforcement, extinction, response cost, time out, response incompatibility to eliminate positive reinforcement for drinking and enhance positive reinforcement for sobriety

Efficacy of CRA Through Concerned Others

- One Randomized Control Trial (RCT) showed Community Reinforcement Approach (CRA) was more effective (64%) than Al-Anon (13%) or "Intervention" (30%) at engaging person in treatment
- All Concerned Others showed remission of depression, anxiety and physical symptoms
- A replication RCT showed that CRA was significantly more effective (58.6%) than Al-Anon/Na-Anon Facilitation Therapy (29%) at engaging unmotivated drug users into treatment
- CRA plus group-aftercare resulted in 76.7% treatment engagement

Harm Reduction

- Don't drink and drive. Use a designated driver, spend the night where you are drinking or drink at home.
- Avoid spikes in blood-alcohol level that cause nausea, vomiting, falls, blackouts and alcohol poisoning.
- Strategies to keep your blood alcohol in a more enjoyable and safer range:
 - Eat or drink water before you drink alcohol
 - Drink beer rather than hard liquor
 - Mix hard liquor with water, not sweet carbonated beverages
 - Sip your drinks slowly (no more than one per hour)
 - Alternate between alcoholic and non-alcoholic drinks

Harm Reduction

- Drinking in bars slows some people down because of the expense. However, be sure you do not drive after drinking.
- Take vitamin B12 to reduce the chances of alcohol-related brain damage.
- Keep your drinking to no more than two drinks per day, or cut back on certain days of the week, such as weeknights.
- Take a drinking "holiday" (days or weeks when you decide not to drink at all). This can remind you of some of the benefits of being sober.

Summary

- Alcohol use and abuse are associated with TBI and may cause harm.
- Watch for unfounded myths.
- Many brief, sensitive, no-cost screeners available.
- Many types of treatment available. Multiple sessions recommended.
- Non-specialists can learn interventions.
- Alcohol screening and interventions can be integrated into many clinical settings.

Thank You! Questions?





Thank You

- Throughout the webinar, you are welcome to submit questions via the Adobe Connect or Defense Connect Online question box located on the screen.
- The question box is monitored during the webinar, and questions will be forwarded to our presenters for response during the question-and-answer session of the webinar.
- Our presenters will respond to as many questions as time permits.





DEFENSE CENTERS OF EXCELLENCE

For Psychological Health & Traumatic Brain Injury

Substance Use Disorder Clinical Support Tools

LTC Philip Holcombe, Ph.D.

Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury



Required Disclaimer

I have no relevant financial relationships and do not intend to discuss the off-label/investigative (unapproved) use of commercial products/devices.



Management of Substance Use Disorder (SUD)





Management of SUD in Specialty Health Care



Substance Abuse Affects Families



- Facts on substance abuse for service members and families
- "How to" action steps



Management of SUD in Specialty Health Care



Treatment options for alcohol dependence, including medication



Resources

To download the SUD Tool Kit and the full-length clinical practice guideline, please use the following links:

- Substance Abuse Affects Families Brochure <u>https://www.qmo.amedd.army.mil/substance%20abuse/SUD_Patien</u> <u>t_Brochure.pdf</u>
- Medication Assisted Treatment for Alcohol Dependence Booklet <u>https://www.qmo.amedd.army.mil/substance%20abuse/SUD_Patien</u>

t_Booklet.pdf

 Reintegration Resilience Pocket Guide <u>https://www.qmo.amedd.army.mil/substance%20abuse/SUD_Pocket</u> <u>Guide.pdf</u>



Thank You! Questions?





Question-and-Answer Session

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If you pre-registered for this webinar and want to obtain a continuing education certificate, you must complete the online CE evaluation.

- If you pre-registered on or before Monday, Jan. 21, 2013, please visit conf.swankhealth.com/dcoe to complete the online CE evaluation and download your continuing education certificate.
- If you pre-registered between Tuesday, Jan. 22, 2013, and now, your online CE evaluation and continuing education certificate will not be available until Monday, Jan. 28, 2013.
- The Swank HealthCare website will be open through Monday, Feb. 4, 2013.
- If you did not pre-register, you will not be able to receive CE credit for this event.



Save the Date

Next DCoE Monthly Webinar:

Chronic Pain: The Biopsychosocial Approach

Feb. 28, 2013 1-2:30 p.m. (EST)

| February | | | | | | | |
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