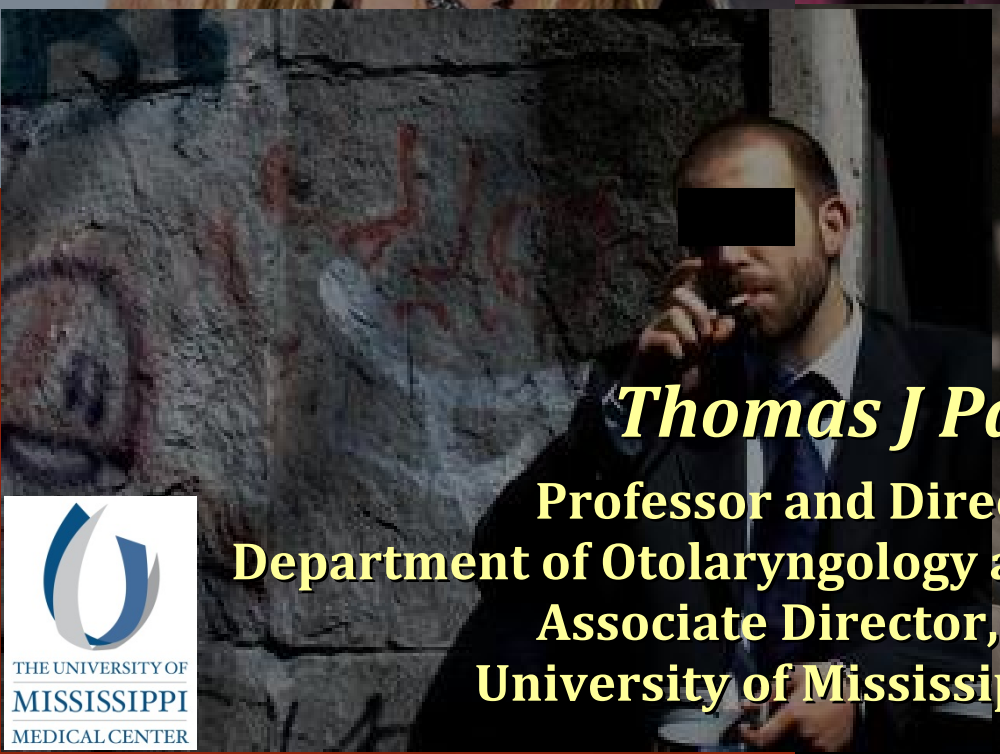
Tailoring Tobacco Treatment Services based on Psychological Factors



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Presentation Handout Update

- Updated version of slide handout available soon
  - Additional information
  - References included
- Download at www.act2quit.org

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Role of Assessment

- **Psychological Assessment: evaluation of patient-level characteristics for the purpose of understanding tobacco program enrollment, treatment options, progress and outcome**
- **Identifies potential targets that should be monitored in their own right**
- **Reflects endorsement of a clinical model of treatment that recognizes the need for in-depth, individualized knowledge about the patient to tailor clinical decision making**
  - **Contrast with more generic approaches that provide a highly standardized approach that largely ignores this level of information**
- **This approach is likely to become increasingly important**

Role of Assessment
By Phase of Treatment

- **Screening**
  - Determine need for treatment
  - Sufficient motivation to engage in a self-management program
- **Intake**
  - Understands program, requirements
  - Appropriate level of treatment intensity
  - Strengths and Weaknesses
  - Outcome moderators
  - Presence of barriers / complicating factors
  - Is this person right for this program?
- **Primary treatment**
  - Development of skills
  - Persistence of effort
  - Proper use of medications
  - Symptom expression
  - Achievement of interim goals
  - Initial outcomes
- **Follow-up**
  - Establishment and continued use of skills
  - Persistence of effort
  - Proper use of medications
  - Symptom expression
  - Slips, recoveries
  - Long-term outcomes

Assessment Considerations

- Key factors
- Instruments
- Procedures
- Match to program type
- Capacity to interpret and use information
- Time constraints
- Resources

Assessment Dimensions

- **Core dimensions**
  - **Nicotine Dependence**
  - **Motivation**
  - **Self-Efficacy**
  - **Spouse / Partner Smoking Status**
  - **Stress & Distress**
  - **ETOH use and abuse**
  - **Co-morbid Psychopathology**

- **Background factors**
  - **Age**
  - **Gender**
  - **Ethnoracial status**
  - **Education**
- **Additional factors**
  - **Co-morbid medical conditions**
  - **Compliance with treatment**
  - **Quit history**
  - **Weight gain**
  - **Social Support**

Nicotine Dependence

Nicotine is a psychoactive substance that has reinforcing effects, demonstrates the development of short- and long-term tolerance, and is associated with withdrawal symptoms upon abrupt reduction or discontinuation of use

Nicotine Dependence is a cluster of cognitive, behavioral and physiological symptoms indicating that the individual continues use of the substance despite substance-related problems

Diagnostic and Statistical Manual for Mental Disorders, 4th edition (1994)

Nicotine Dependence

- Recent evidence that ND has increased among treatment seekers (e.g., Brandon, SRNT 2012)
- Primary indications
  - Type and magnitude of Withdrawal Symptoms, Craving
  - Implications for medication choice, dosing, duration
  - Relationship with outcomes
- Also consider
  - How the *perception* of nicotine dependence affects motivation / self-efficacy, medication

Nicotine Dependence
Methods of Assessment

- FTND
  - 5+ = High Dependence
- Wisconsin Inventory of Smoking Dependence and Motives (WISDM)
- Minnesota Nicotine Withdrawal Scale

Heatherton TF, Kozlowski LT, Frecker RC, Fagerstrom KO (1991).The Fagerstrom Test for nicotine dependence: A revision of the Fagerstrom Tolerance Questionnaire. *Br J Addict* 86, 1119–1127.

Withdrawal Symptoms

- **Insomnia**
  - Evident within 1st day of quitting
  - Primarily sleep fragmentation; can lead to dysphoria
  - Some report decrease in sleep latency
  - Peaks within 1 – 3 days
  - Lasts 3 – 4 weeks
- **Irritability / Frustration / Anger**
  - Can last > 1 month
  - 80% of quitters endorse this item
- **Anxiety**
  - Often evident prior to quit attempt
  - Peaks within days
  - Lasts 3 – 4 weeks
- **Dysphoric / Depressed mood**
  - Can last > 1 month
- **Difficulty Concentrating**
  - Evident within 1st day of quitting
  - Peaks within 1 – 3 days
  - Lasts 3 – 4 weeks
  - Generally mild
- **Restlessness**
  - Lasts < 1 month
  - Perceived as highly aversive
- **Increased Appetite / Weight Gain**
  - Appetite change lasts 10 weeks
- **Decreased Heart Rate**
  - Average decrease is 10 bpm

Nicotine Dependence
Patient Perspectives

- "I'm too addicted, I'll never quit…Why even try?"
  - Attributed to genetics / biology
  - Medication is the only answer
- "You just need willpower"
  - Plays down importance of ND; possibly hesitant to use medications
  - Plays down importance of learning specific coping strategies
- "I'm concerned about using medications"
  - "What they don't know"
  - Crutch
- "I quit 6 months ago but I still need my NRT"
  - Possible excessive concern re: role of biology
  - Is this a problem?

Nicotine Dependence

Summary of Treatment Implications

- Patient should have a balanced view, i.e., Biopsychosocial model of human behavior
- Address medication safety concerns
- Withdrawal symptoms should be minimized to reduce impact on learning and implementing cognitive-behavioral strategies
  - Medication choices, dosing, duration
  - Relaxation training, cognitive reframing, distraction

Motivation

- Desire to quit
- Fluctuates; not a static quality
  - Time since decision made
  - Personal relevance (changes in health, impact on family)
  - New evidence (news reports, etc.)
  - Relative importance to other circumstances
- Adequate level necessary to proceed
  - Provide motivational intervention, as appropriate
- Assessing and enhancing motivation is an integral and ongoing part of treatment

Miller WR, Rollnick S (2002). Motivational Interviewing. NY: Guilford.

Motivation
Methods of Assessment

- Simple rating scale (0 – 10)
- What do we want to hear our patients say?
  - Ready to set Quit Date
  - Self-report of appropriate activities
  - Previous efforts
  - Specific, personalized reasons
- Compliance with treatment protocol
- Stages of Change
  - Approach and value have been questioned (West, 2005)

West R (2005). Time for a change: putting the Transtheoretical (Stages of Change) Model to rest. *Addiction. 100(8):1036-9.*

On a scale of 0 to 10, how much do you want to quit smoking right now?

Low **Moderate** **High**

Tailoring Treatment

Matching Strategies to Motivational Status

Not Ready to Quit	Possibly Ready to Quit	Ready to Quit
Explore attitudes about tobacco	Educate: withdrawal, medications	Develop plan
Reduce resistance to possibility of quit	Increase confidence in ability to succeed	Execute
Review personalized risks and benefits	Attempt small behavior change (reduce rate)	
Medications?	Medications?	

Motivation
Patient Perspectives

- "My doctor says I have to quit"
- "My spouse really wants me to quit"
  - OK, as long as not the only reason
  - If I fail, it is because I really was not ready to quit

- "I really like smoking"
  - It is very reinforcing – what will take its place?
  - It's not that I can't quit, I just really want to smoke

- "I'm 65… does it really matter any more?"
- "I have emphysema… why bother?"
  - Nothing to be gained, OK to continue smoking

Motivation

Summary of Treatment Implications

- Use MI or similar interactional style to improve / maintain motivation and collaborative efforts with patient
  - Couched within a cognitive-behavioral framework
- Match treatment components to level of motivation
- Emphasize issues that are personally relevant
- Adjust efforts based on fluctuating course of motivation and treatment progress

Self-Efficacy

- Expectation for achieving and maintaining abstinence from tobacco
- Confidence to change specific behaviors and follow through
- Not simply "Willpower"
- Influenced by:
  - Experiences in similar circumstances
  - Value and likelihood of a positive outcome
  - Timing of efforts that yield small successes as one progresses toward overall goal

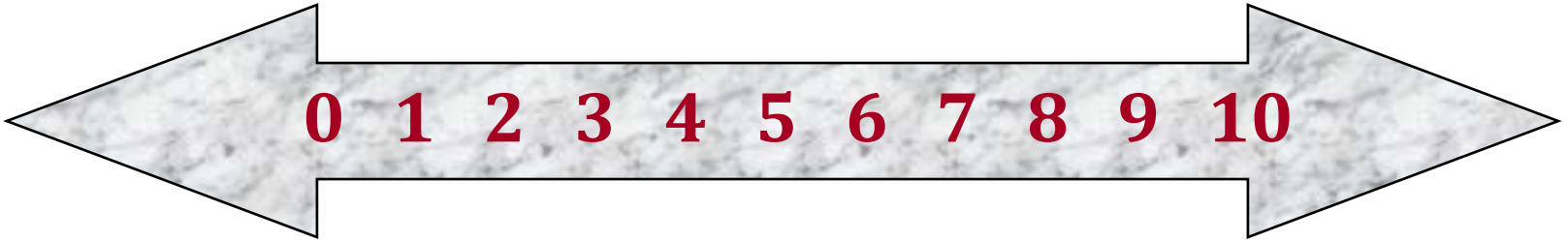
Bandura A (1977). Toward a unifying theory of behavior change.. Psych Review, 84, 191-215.

Self-Efficacy
Methods of Assessment

- Standardized measures
  - Smoking Self-Efficacy Questionnaire
  - Smoking Confidence Scale
- Simple rating scale (0 – 10)
- Ratings obtained later in treatment may be more predictive of success

Colletti G, Supnick JA, Payne TJ (1985). The smoking self-efficacy questionnaire (SSEQ): Preliminary scale development and validation. *Behavioral Assessment*, *7*, 249-260.

On a scale of 0 to 10, how confident are you that you can quit and stay quit?



Low **Moderate** **High**

Self-Efficacy
Patient Perspectives

- "I really want to quit, but I just can't seem to do it"
  - Skill issue
  - All or none mindset, as opposed to a process
- "I've tried and failed so many times…"
  - Makes me feel terrible, I don't want to feel like that again
  - Maybe some people just can't quit
- "I don't have any willpower"
  - Resigned, disheartened, depressed (?)

Self-Efficacy

Summary of Treatment Implications

- Final common pathway for behavior change
- Practice and repeated efforts to quit improve predictive accuracy of SE measurement
- Recognize as fluid state
- May not demonstrate cross-behavioral consistency
- Reframing of past experiences
  - Not failures
  - Normal
- Successes with small steps build SE
  - e.g., rate fading

Spouse / Partner Smoking Status

- **All Partners…**
  - Level of support
  - Welcome intervention?
  - Possible Negative aspects (nagging, undermining)
- **Partner Smokers…**
  - Relationship to outcome
  - Treatment options

Spouse / Partner Smoking Status

Methods of Assessment

- **Considerations**
  - Patient's perceived interest in partner quitting
  - Expectation for positive and negative support from partner (teach partner how to help)
  - Home smoking policies; flexibility for change
  - Medication implications (partner's perspective, sharing Rx's)

- **Questionnaires**
  - Partner Interaction Questionnaire

Mermelstein RJ, Cohen S, Lichtenstein E, Baer JS, Kamarck D (1986). Social support, smoking cessation and maintenance. JCCP 54, 447-453

Spouse / Partner Smoking Status

Patient Perspectives

- "My spouse won't quit"
  - Need to establish rules that meet everyone's needs
- "My spouse won't negotiate"
  - Need to find some arrangement that will work for patient
- "It's all we do together"
  - Need for explore adapt to lifestyle without tobacco
  - Consider new activities
- "My spouse sneaks outside and smokes"
- "She's not being honest with you"
  - Likely to increase tension between partners
  - Train spouse how to help

Spouse / Partner Smoking Status

Summary of Treatment Implications

- Try to treat couple, even if not together
  - May be preferred approach unless evidence for strong mutual support
- Ground rules for smoking / smoke-free areas
- No policing partner
- Anticipate and prevent undermining
- 'How to help' discussion and literature

Stress and Distress

- Excessive demands relative to capacity to cope
- Characteristics
  - Event (Stressor) and Impact (Distress)
  - Positive vs. Negative quality
  - Episodic vs. Chronic
  - Major vs. Minor (Intensity)
- Individual variation in response
- Coping Response preferences
- Social Support
- Stress and the quitting process
  - Early phases of treatment
  - Post cessation

Baer J, Lichtenstein E (1988). Classification and prediction of smoking relapse episodes: An exploration of individual differences. JCCP, 56, 104-110.

Stress and Distress
Methods of Assessment

- Stress Inventories
  - Major Events: Life Events Survey
  - Minor Events: Weekly Stress Inventory, Hassles
  - Typical daily stress level: Perceived Stress Scale (PSS-4)
    - Consider 5+ as elevated / impact quitting
- Related Questionnaires
  - Mood Inventories: PANAS, POMS
  - Anger: STAXI
  - Anxiety: STAI
  - Coping Style: CSI, Ways of Coping
- Clinical Interview

Cohen s, Lichtenstein E (1990). Perceived stress, quitting smoking, and smoking relapse. Health Psych, 9, 466-478.

Stress and Distress
Patient Perspectives

- Recent unexpected major event (death, flood, etc.)
  - Substantial impact
- High level of minor stressors
  - Chronicity vs. recent change
- Chronic major stressor (caring for parent with dementia)
  - Stable, predictable
- Excessive response to stress
  - Skills training
- New medical diagnosis with upcoming surgery
  - Not ideal, but important to press on
- Medication considerations for management
  - Healthcare provider, psychiatry consult

Stress / Distress

Summary of Treatment Implications

- Consider intensity, chronicity of stressor
- Patient's coping skills, resources, support
- Direct management of symptoms: psychological, pharmacotherapy

Alcohol / Substance Use and Abuse

- Complex presentations
- High prevalence of tobacco use
- Continued SA likely to interfere with smoking cessation efforts
  - Address concerns within this context
- Smoking cessation treatment does not jeopardize recovery, but decreases use of abused substances, and increases likelihood of SA abstinence (25%)
- Be aware of various patterns of excessive use
  - Routine consumption
  - Binge drinking
- Caution with term 'Alcoholic'

Alcohol Use and Abuse

Methods of Assessment

- BAC levels
- MAST
- CAGE
- AUDIT
- Self-Monitoring
- Clinical Interview
- DSM-IV criteria
- Patterns of Use

Hughes JR, & Kalman D (2005). Do smokers with alcohol problems have more difficulty quitting? Drug and Alcohol Dependence; 82, 91-102.

Alcohol / Substance Use and Abuse
Patient Perspectives

- Attends clinic (group) with smell of alcohol on breath
  - Patient commitment; disruptive
- Episodic use of alcohol associated with not meeting goals, slips
  - Deliberate?
  - Impact on motivation / SE / effort
- "I'm here to quit smoking, not drinking"
  - Not unreasonable
- No smoking (?) but high CO levels due to marijuana use
  - Impact on cessation
  - Implications for group
- Indications of high Pre-Treatment alcohol consumption, with willingness to quit cold turkey
  - Difficulty
  - Medication issues

Alcohol / Substance Use and Abuse

Summary of Treatment Implications

- OK to treat simultaneously
- Cannot be impaired / smell of alcohol during treatment sessions
- Consider approaching alcohol use as a matter of tobacco treatment
- Medication interactions
  - Zyban and high alcohol use

Comorbid Psychopathology

- Associated with higher incidence; adversely impacts prognosis
  - Estimated 41% prevalence in those with mental illness
  - These individuals consume 44% of all US cigarettes
  - Less likely to try to quit
  - Less likely to successfully quit
  - More likely to relapse
- Schizophrenia / Bipolar Disorder
- Anxiety
- Depression
  - Current or past DX (particularly recurrent), or presence of significant symptoms
  - Cessation may exacerbate depressive symptoms

Hitsman B, Borrelli B, McChargue DE, Spring B, & Niaura R (2003). History of depression and smoking cessation outcome: a meta-analysis. JCCP, 71, 657-663.

Lasser K, Boyd JW, Woolhandler S, Himmelstein DU, McCormick D, & Bor DH (2000). Smoking and mental illness: A population-based prevalence study. JAMA, 284, 2606-2610.

Comorbid Psychopathology
Methods of Assessment

- Chart review
- Questionnaires (generally not diagnostic)
  - BDI
  - CES-D
  - SCL-90
- Standardized clinical / diagnostic interview
  - SCID
  - MINI
  - CIDI

Comorbid Psychopathology
Patient Perspectives

- Long-term h/o depression
  - Prognosis
  - Impact on depressive symptoms
- Stable schizophrenic disorder
  - OK to treat
  - Help in managing stress, social issues
- Medication considerations
- What disorder is associated with a **LOW** smoking prevalence?

Evins AE, Cather C, Rigotti ND, Freudenreich O, Henderson DC, Olm-Shipman CM, et al (2004). Two-year follow-up of a smoking cessation trial in patients with schizophrenia: increased rates of smoking cessation and reduction. Journal of Clinical Psychiatry, 65, 307-311.

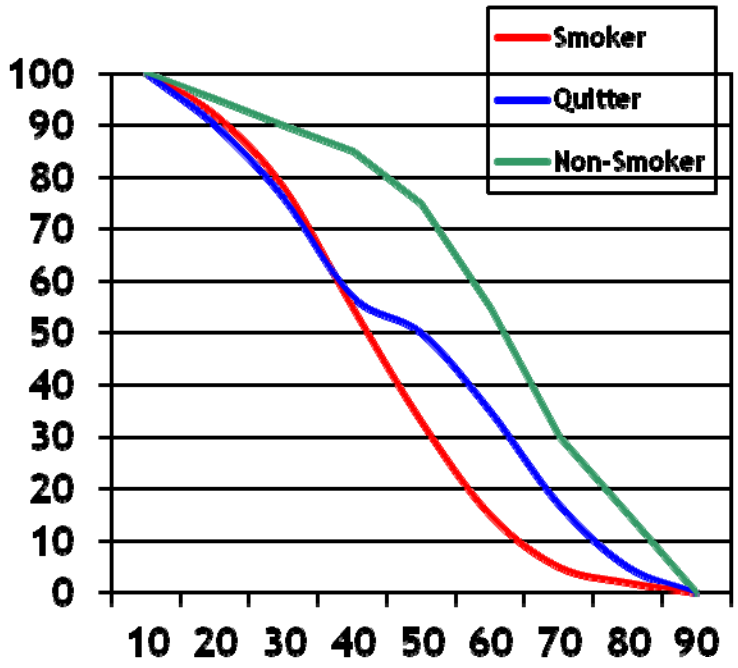
Comorbid Psychopathology

Summary of Treatment Implications

- Recognize lower likelihood of positive outcome; adjust treatment accordingly
- Directionality of effects?
- Coordinated care
- Medication interactions

Older Tobacco Users

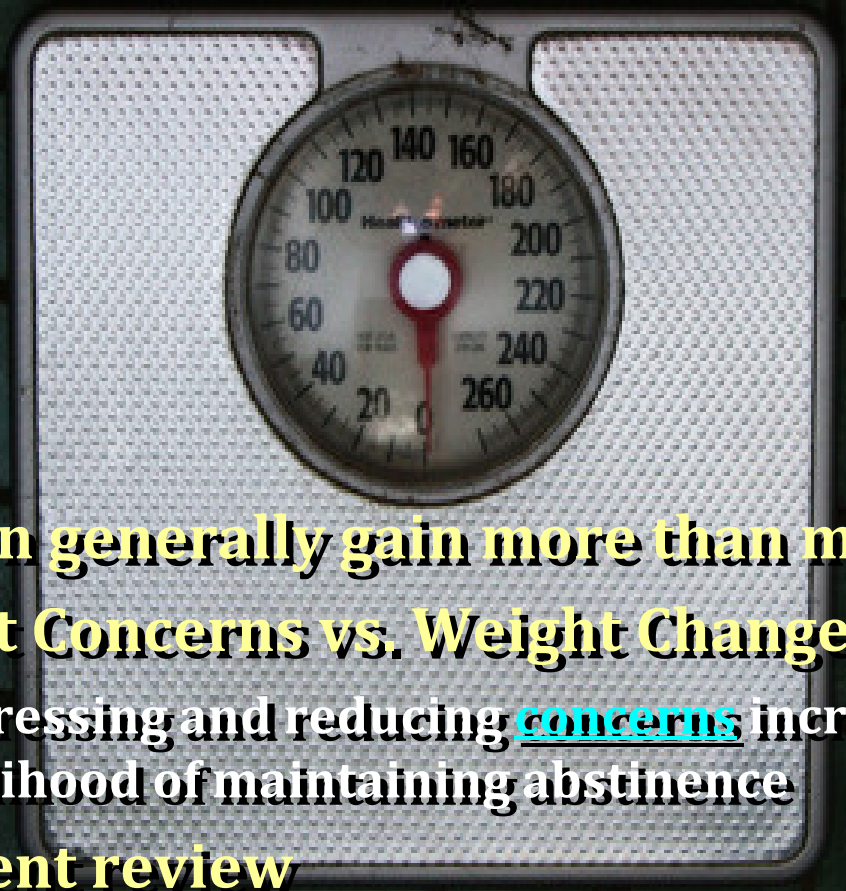
- Some evidence of greater likelihood of quitting
- Potential negative factors
  - Social isolation
  - Low income
  - Minimal resources and access
  - Mobility
- Belief there is little to gain from quitting
  - Benefits evident at all ages
  - Compression of morbidity (see graph)
  - Improved QOL



Gender

- Factors that may negatively impact outcome for women
  - Depression
  - Menstrual cycle effects
  - Weight concerns
  - NRT possibly less effective for women
- Factors that may negatively impact outcome for men
  - Substance abuse
- Other
  - Women smoke less overall
  - Social support often better for women
  - Women typically demonstrate more smoking in response to environmental contingencies relative to men

Weight Gain



- Women generally gain more than men
- Weight Concerns vs. Weight Change
  - Addressing and reducing concerns increases likelihood of maintaining abstinence
- Excellent review
  - Audrain-McGovern & Benowitz, 2011

Audrain-McGovern J, Benowitz NL (2011). Cigarette smoking, nicotine, and body weight. Clin Pharmacol Ther. 90, 164–168. doi:10.1038/clpt.2011.105.
Meyers AW, Klesges RC, Winders SE, Ward KD, Peterson BA, Eck LH. Are weight concerns predictive of smoking cessation? A prospective analysis. JCCP, 1997; 65:448–452.

Weight Gain
Recommendations

- Acknowledge, but de-emphasize
- Discourage frequent weight monitoring
- Encourage healthier eating habits
- Encourage modest increase in activity level
- Consider medication effects
- Can always address later – referral

Social Support

- PHS Guideline points to importance of support during treatment
- The presence of support (provided during treatment or already existing for patient) appears to improve outcomes
- Efforts to increase extra-treatment support either produce mixed results or show no improvement (buddy systems, etc)

Summary

- Assessing psychological factors can improve understanding of patient
- Address those issues that are within the resource capacity of treatment program
- Identify key areas that can help motivate patient
- Facilitate tailoring of treatment options for the individual
- Raise staff awareness of factors that should be monitored
- Identify other areas for which referral is indicated