

# Research-Based Principles of Change in Treating Substance Abuse

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# General References

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## What Works---A Series of three volumes by Oxford University Press

Nathan, P. E., & Gorman, J. M. (Eds.). (2002). A guide to treatments that work (2nd ed). New York: Oxford University Press.

- Division 12 Report on Treatment Models and Problem types

Norcross, J. C. (Ed)(2002). Psychotherapy Relationships that Work: Therapist Contributions and Responsiveness to Patient Needs. New York: Oxford University Press.

- Division 29 Report on Relationship, patient, and therapist factors

Castonguay, L. G., & Beutler, L. E. (Eds)(2006) *Principles of Therapeutic Change that Work* (pp. 353-369). New York: Oxford University Press.

Division 12/NASPR Report on integrating treatments, relationships, and participant factors

# Two Perspectives on “Effective Psychotherapy”.

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- Some Treatments are Indicated. Empirically Supported Treatments—ESTs (Division 12 Task Force; Nathan & Gorman, 1998; 2002; Chambless & Ollendick, 2001; Chambless & Hollon, 1998)
- All Treatments are Essentially Equivalent. Dodo Bird Verdict—(Division 29; Norcross, 2002; Wampold, 2001; Luborsky, et al, 1975; Lambert, 1994)

# Short-Comings of Usual Methods of Assessing Treatment Effects

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- ESTs focus on the instruments and theories of treatment rather than on the predictors of outcome.
- EST Structured treatment manuals fail adequately to address the role of therapist judgment and creativity, or therapeutic relationship.
- ESTs address such issues as reliability and accuracy of diagnoses, but persist in constructing treatment around diagnoses, ignoring non-diagnostic patient dimensions in treatment decisions.
- ESR Relationship research fails adequately to address techniques and procedures.
- ESR research does not address problem specific findings

# Question

Is it possible to identify general and specific principles that govern effective therapy, rather than either discrete variables or whole models of intervention?

# In Search of Cross-Cutting Principles of Change

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Castonguay, L. G., & Beutler, L. E. (Eds)(2006)  
*Principles of Therapeutic Change that Work*  
(pp. 353-369). New York: Oxford University Press.

Task Force on Empirically Supported Principles of Therapeutic Change (Division 12 of APA)

Initiated in 2002 to integrate participant, relationship, and technique variables into a set of Principles of Change

- Must be senior scholars with similar levels of visibility in the professional community
- Willing and interested in working toward integration and synthesis
- Willing to work with a colleague who does not share their theoretical views
- Willing to work hard for no pay

# Structure of Task Force

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- Four Problem Areas

- Dysphoria
- Anxiety
- Substance Abuse
- Personality Disorder

- Three Domains of Each Problem

- Participant Factors
- Relationship Factors
- Treatment Factors

# Mission of Task Force

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- Review all research on the psychosocial treatment of depression, anxiety, personality disorders, and substance abuse that supports the conclusions of the Divisions 12 and 29 Task Forces.
- Integrate participant, relationship, and treatment factors found to be important in this research into research-informed principles that can guide the clinician and facilitate optimal change across disorders

# Common Versus Specific Principles

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Principles = General statements (non-techniques) of strategies that promote change.

Common Principles---Those principles that are the same for different problem areas

Specific Principles---Those principles that are unique to a given problem or to similar problem areas

# Contributors to Chemical Abuse Chapters

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- Participant Factors
  - D.A. Haaga; S. M. Hall; & A. Haas
- Relationship Factors (Including Family Relationships)
  - J. Lebow; J. Kelly; L. M. Knobloch-Fedders; & R. Moos
- Treatment/Intervention Factors
  - B. McCrady & P. E. Nathan

# Common Principles

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## COMMON PRINCIPLES RELATING TO PARTICIPANTS

- Severity
- 1. The more impaired or severe and disruptive the problem, the fewer benefits are noted for time-limited treatments.
- 2. If the patient has a co-morbid depression or Personality Disorder, the gains expected in treatment are weakened.
- 3. Openness and tolerance on the part of the therapist are more important than shared experience.

# Common Principles Regarding Participants-- Continued

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- 4. Prognosis is best among those patients with social approach styles or non-avoidant styles.
- 5. Outcome is not substantially or meaningfully enhanced by variations in patient age, gender, ethnicity, and intelligence.
- 6. Level of patient collaborative engagement and compliance are positively related to outcome. Interventions that reduce patient collaborative engagement (i.e., activate trait-like resistance) include such things as therapist over-control, over-directiveness, and confrontation that exceeds the patient's level of tolerance.

# Common Principles Governing Relationships

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- 1. Effective treatment is enhanced when therapists strive to develop and maintain a positive working alliance with their clients.
- 2. Group therapy effects are enhanced if therapists successfully foster a strong level of cohesiveness within the group.
- 3. Effective treatment is facilitated when therapist and patient share common goals of treatment and are collaborative in seeking to achieve these goals.

# Common Treatment Principles

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- 1. Principles of treatment are only of value if carried out within the context of a good therapeutic relationship
- 2. Advantageous treatments directly focus on presenting problems and concerns.
- 3. To maximize treatment gains, an ongoing assessment is valuable to determine whether therapy is meeting the goals set by the therapist and patient.
- 4. Improvement is enhanced when successful efforts are made to facilitate clients' knowledge and awareness of the relationship between their problems the external environment and the way in which they think, feel and behave.

# Specific Principles Related to Treatment of Substance Use/Abuse

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## ■ Observed Participant Characteristics

1. “Therapists with vs. without a history of substance use disorder appear to be equally effective in treating alcohol or illicit drug abuse.”
2. Involve social support systems

## ■ Treatment Principles

1. “Identify other social service or medical care needs and arrange for attention to these needs”.

# Specific Principles--Continued

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## SMOKING—Unknown Generalization

1. “High-medical-risk smokers will be especially receptive to individual counseling for smoking cessation only if smoking plausibly contributed to their risk status.”
2. “Although the evidence is not entirely consistent, cognitive behavior therapy may be differentially effective with depressed smokers relative to comparison conditions. This prescriptive effect may apply especially to those smokers with chronic, recurrent depression.”

## ■ Inferred Participant Characteristics

1. “Smokers in more advanced stages of change, as defined in the transtheoretical model, are more likely to succeed in quitting smoking. Likewise, alcohol abusers reporting increased readiness to change fare better in treatment.”

# Additional Principles for Resistant and Poorly Motivated Patients

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- “The most effective treatments are likely to be those that do not induce patient resistance.” i.e.---they enhance patient motivation.
- The therapist’s use of directive therapeutic interventions inversely correspond with the patient’s manifest level of resistance.
- Level of focus on emotional experience should vary inversely with patient arousal/depression to facilitate change.

# Additional Principles for Chronic and Acting out Patients

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## **Almost Certainly:**

1. Patients with high levels of initial impairment respond better when they are offered long term, intensive treatment, than when they receive non-intensive and brief treatments, regardless of the particular model and type of treatment assigned. Patients with low impairment seem to do equally well in high and low intensive treatments.
2. Patients whose personalities are characterized by impulsivity, social gregariousness, and external blame for problems, benefit more from direct behavioral change and symptom reduction efforts, including building new skills, and managing impulses, than they do from procedures that are designed to facilitate insight and self-awareness.

## **And probably:**

3. Patients whose personalities are characterized by low levels of impulsivity, indecisiveness, self-inspection, and over control, tend to benefit more from procedures that foster self-understanding, insight, interpersonal attachments, and self-esteem, than they do from procedures that aim at directly altering symptoms and building new social skills.

# Research in support of the “Added Principles” of Differential Change

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# Systematic Treatment Selection and Prescriptive Therapy--Assumptions

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- Patient, Therapist, Relationship, and Treatment factors all add independent variance to the prediction of change and maintenance.
- These relationships are best captured as “Emprically-Informed Principles” rather than of static Treatments, discrete types of Relationships, or even types of Therapists.
- These “Principles” address prognosis, clinician skill, patient factors, and the “FIT” of treatment to patient.

# The Foundation Work on Systematic Treatment Selection

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- Beutler, 1979—Extracted dimensions of differential treatment from Luborsky's DoDo bird review.
- Beutler, 1983—Proposed a principle driven treatment to replace brand name interventions.
- Beutler & Clarkin, 1990---Identified 30+ patient and treatment dimensions were associated with improvement in general psychotherapy
- Beutler, Clarkin, & Bongar, 2000---Reduced the list to 8 patient variables, 8 corresponding treatment variables, and 8 matching variables affecting change in a study of 289+ mixed outpatients

# Predictor Variables in STS

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## Patient Variables

- Impairment/Severity
- Coping Style (Internal vs External)
- Resistance Traits
- Distress

## Treatment Factors

- Intensity of Tx—sessions per week
- Insight vs Symptom Focus
- Directive vs Non-Directive
- Emotion vs Task Focus

## Relationship

- Collaboration
- Therapeutic Quality

## Fit of Treatment to Patient Qualities

- Impairment X Intensity
- Coping X Insight/Behavioral Focus
- Resistance X Directiveness
- Distress X Emotion/Task Focus

# The First Prospective Test

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- Beutler, Clarkin, & Bongar, 2000—
  - 289 patients with either chemical abuse, depression, or both;
  - 9 different treatments—CT(3), Experiential, Psychodynamic, Pharmacotherapy, TAU, Group, Individual, Couple
  - Assessment of Fit
    - Resistance X Directiveness
    - Coping Style X Insight/behavioral focus
    - Emotional Control X Emotional/Task Focus
    - Impairment X Intensity

# First Results

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- Patient Factors, Relationship Factors, Matching Patient and Treatment added independent variance to predicting outcomes among depressed and chemically abusing patients, alike.

# Representative Alcohol/Drug Studies that Support the STS Principles of Matching Treatment to Patients

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- Beutler, L. E., Clarkin, J. F., & Bongar, B. (2000). *Guidelines for the Systematic Treatment of the Depressed Patient*. New York: Oxford University Press.
- Beutler, L. E., Moleiro, C., Malik, M., Harwood, T.M., Romanelli, R., Gallagher-Thompson, D., & Thompson, L. (2003). A comparison of the Dodo, EST, and ATI indicators Among Co-Morbid Stimulant Dependent, Depressed Patients. *Clinical Psychology & Psychotherapy*, 10, 69-85.
- Karno, M., Beutler, L. E., & Harwood, T. M. (2002). Interactions Between Psychotherapy Process and Patient Attributes that Predict Alcohol Treatment Effectiveness: A Preliminary Report. *Addictive Behaviors*, 27, 779-797.
- Karno, M. P., & Longabaugh, R. (2003). Patient depressive symptoms and therapist focus on emotional material: A new look at project MATCH. *Journal of Studies in Alcohol*, 64, 607-615.
- Karno, M. P., & Longabaugh, R. (2005). Less directiveness by therapists improves drinking outcomes of reactant clients in alcoholism treatment. *Journal of Consulting and Clinical Psychology*, 73, 262-267.
- Karno, M. P. & Longabaugh, R. (2004). What do we know? Process analysis and the search for a better understanding of Project Match's anger-by-treatment matching effect. *Journal of Studies in Alcohol*, 65, 501-512.

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# A Study of Family Systems and Cognitive Therapy for Alcoholic Couples: A test of Treatment Matching

# Karno, Beutler, & Harwood, 2002

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## ■ Design

- 76 Alcoholic Couples
- Assessed for Coping Style and Resistance Levels
- Cognitive and Family Systems therapies
  - Designed to vary Directiveness and Focus
  - Analyzed at therapist level, rather than Treatment level

# K, B, & H, 2002

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## ■ Results

- Inverse relationships between Patient Trait-like Resistance and Therapist Directiveness was associated with amount of decrease and duration of effects
- External Coping Style was an indicator for Skill Building and Symptom focus; Internal was an indicator for Insight/Emotion-Focused Therapy. Match was associated with decrease of alcohol abuse

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# A Study of Therapy for Co-Morbid Depression and Chemical Dependence: A test of Treatment Matching

# Study Design

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- Beutler, et al, 2003

1. Forty outpatients with co-morbid depression (mild-moderate) and Stimulant Dependence
2. Randomly assigned to three treatments---CT, Prescriptive Therapy, Narrative Therapy
3. 20 weeks of treatment and 6 months follow up
4. DV measures of drug dependence and depression
5. Individual Dyads were assessed for patient contributors, therapy contributors, relationship contributors, and the fit of therapy to patient on 4 dimensions

# Outcome Variables

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- Chemical Use/Abuse—ASI drug and alcohol indices
- Depression---HRSD

# Relative Contributions of Patient, Treatment, Relationship, and Fit

Figure 1 - Percentage of Variance of HRSD Outcome

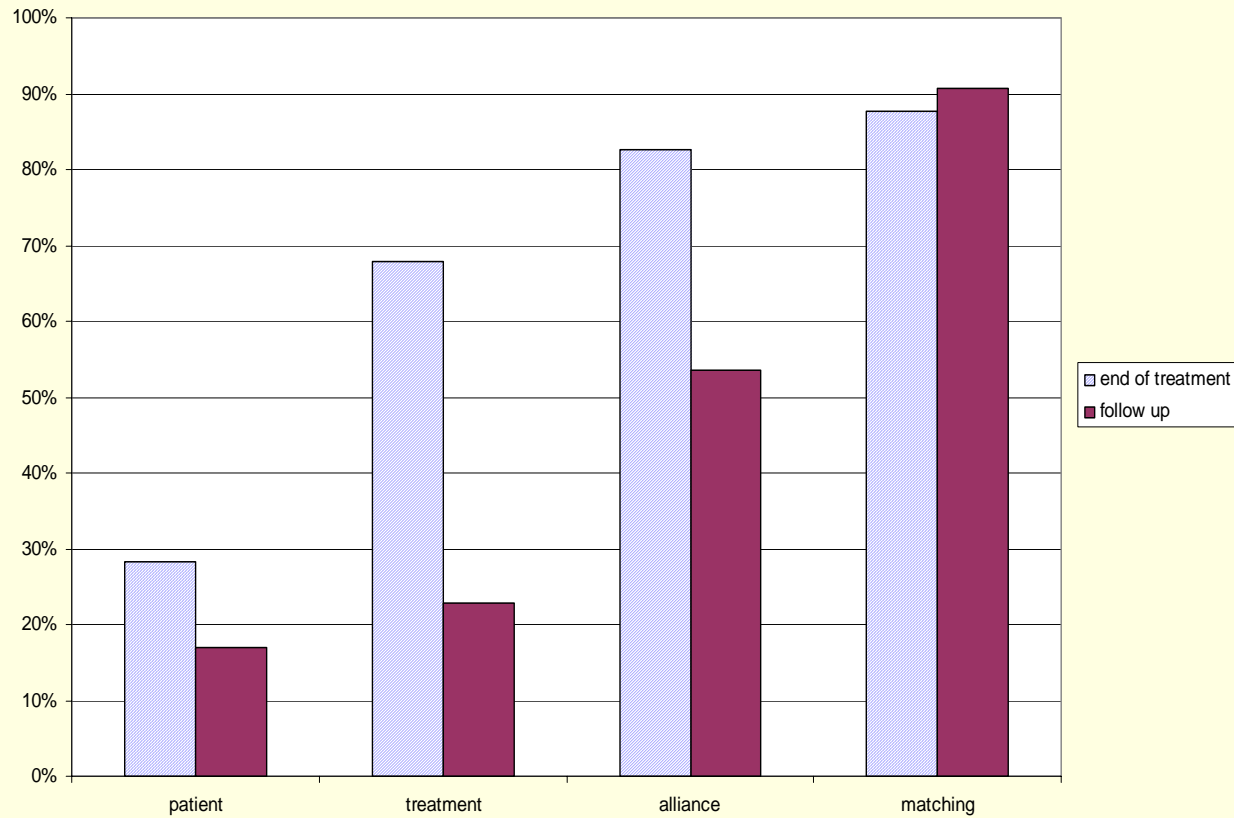


Figure 3 - Percentage of Variance of ASI Alcohol Index Outcome

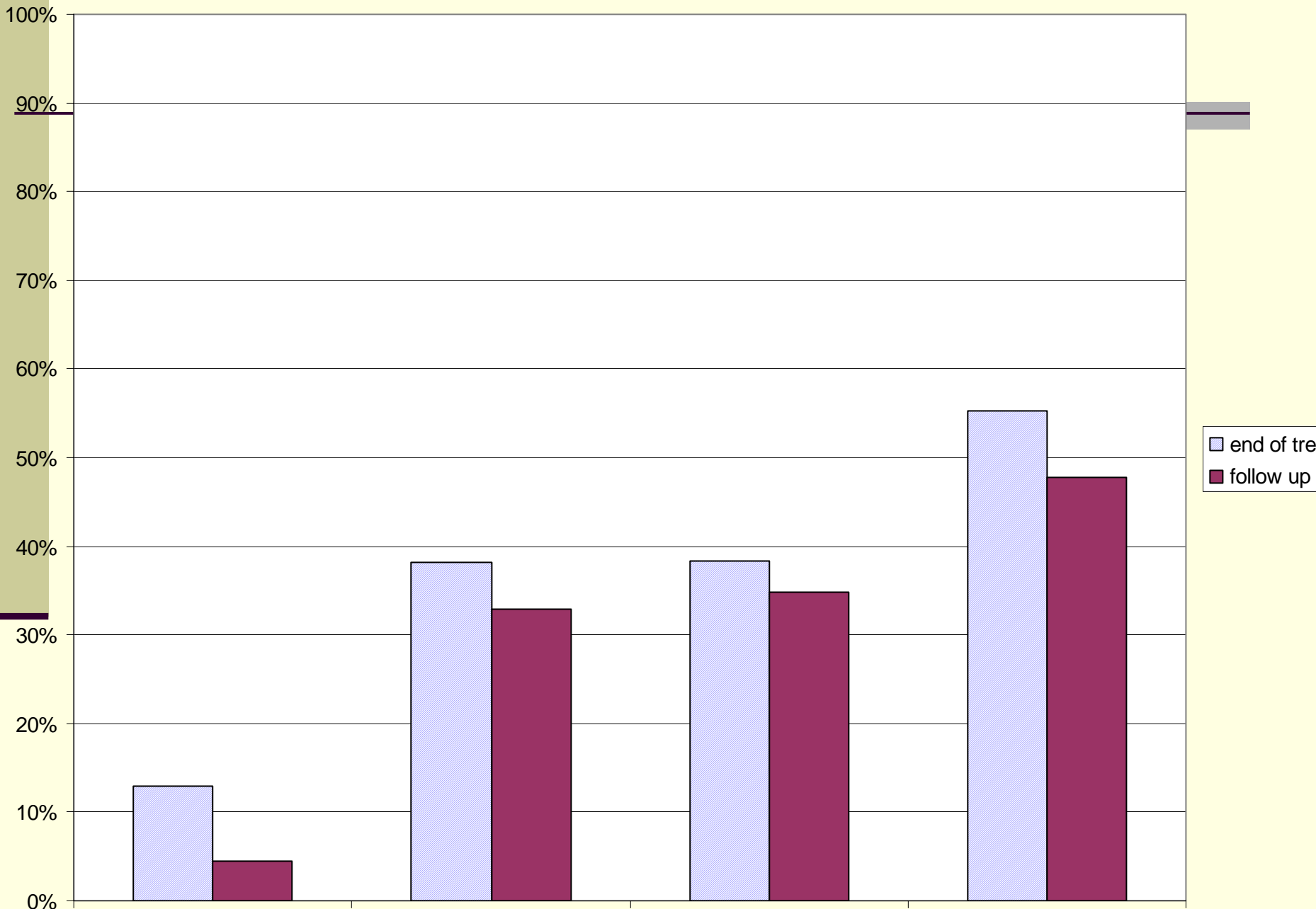
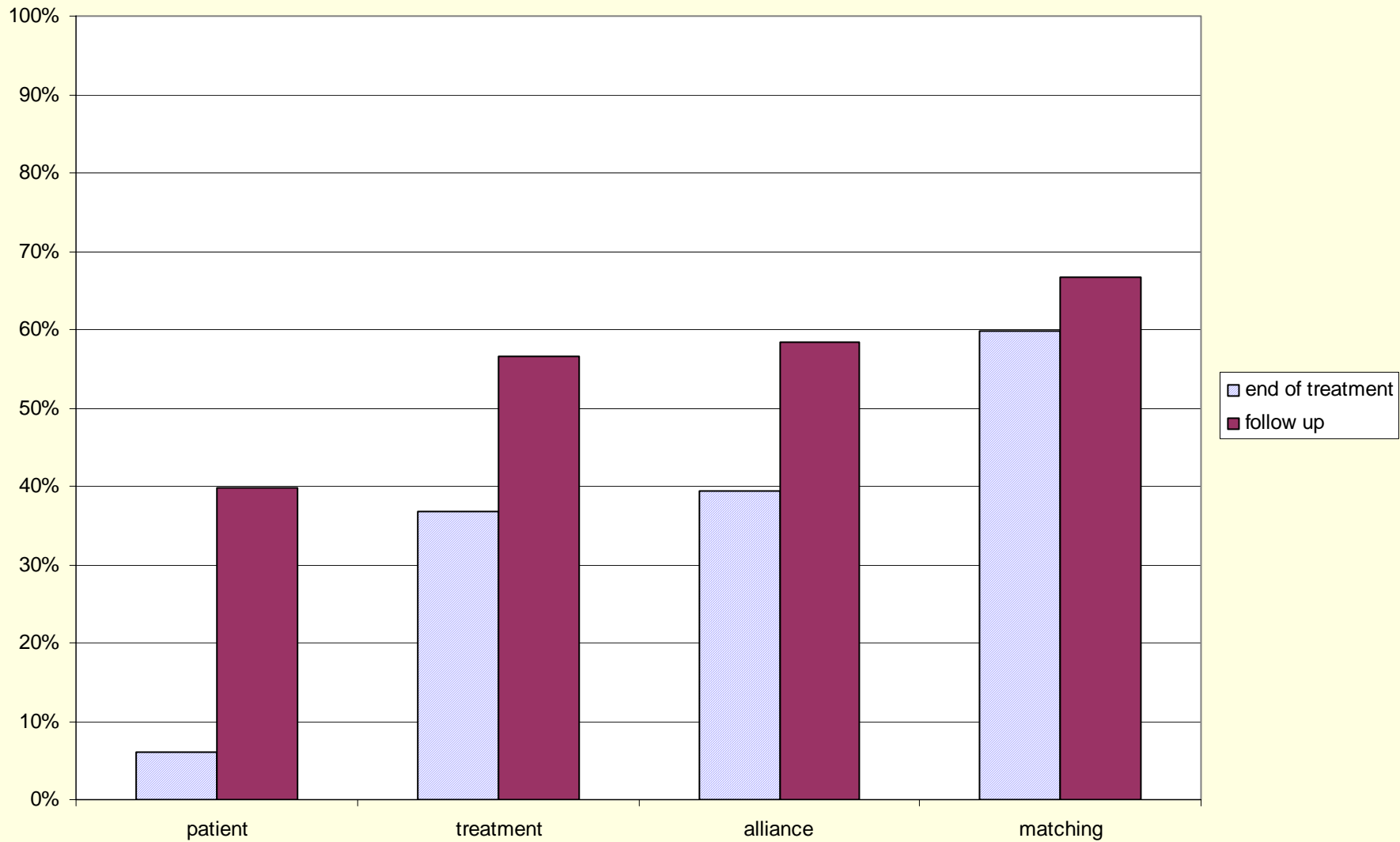


Figure 4 - Percentage of Variance of ASI Drug Index Outcome



# BUT.....

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- Project MATCH found no appreciable effects of matching.....?

# Conclusions from these studies

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- Patient and treatment variables contribute to the prediction of treatment effectiveness among stimulant abusing, alcoholic, and depressed patients.
- The match between treatment and patient variables adds additional power to the short and long term prediction of outcome among stimulant dependent and depressed patients.

# Karno Studies of STS Model among Project MATCH Patients

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# Study #1-Match of Emotional Level and Emotional Focus of Therapy

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- Karno and Longabaugh, 2003---a Study of the fit between patient arousal and therapist emotional focus (a hypothesized inverse relationship for efficacy)
- Design
  - 141 participants from the Providence sample for Project Match
  - Measured actual in-therapy behaviors of the therapist (TPRS)
  - Fit level of depression (arousal) to level of therapist emotional focus.
  - Measured Drinking Outcomes (PDA—Days abstinent; PHDD—Frequency of heavy use)

# Results—K & L, 2003

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- At treatment end and at one year follow up:
  - Hi arousal X Low emotion focus predicted PDA—Supported the STS prediction of Fit.
  - Sub-Clinical arousal (depression) was not predictive of therapy fit

# Study #2—Match of Patient Resistant TRAITS and Level of Directiveness of TX

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- Karno & Longabaugh, 2004—A study of the fit between Resistance (anger) and therapy directiveness
  - Design
    - N = 140 Patients from Providence sample of Project MATCH
    - Anger was measured Spielberger TAS = Resistance (?)
    - Direct measure of therapist directiveness (TPRS)
    - RCT analysis of CBT (directive) vs MET (low directive) gave a separate analysis of the fit of treatment to patient.
    - Outcomes—Frequency of use (PDA) and Quantity (average number of drinks per drinking day (DDD))

# Results—K & L, 2004

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- Among patients who were found to have moderate to high resistant/anger, low directive therapy was most effective for both IVs—Supportive of STS
- Among low resistant/anger patients, low therapist directiveness was most effective—Contrary to STS.
- Pattern was repeated when analyzed for type of therapy (MET = low directive; CBT = High Directive), though with less pronounced effects.

# Study #3—Match Resistant STATES and Therapist Directiveness

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- **Karno & Longabaugh, 2004—A study of Therapist Directiveness among Reactant Clients**
  - **Design**
    - **N = 141 alcoholic patients from Providence Site**
    - **Measured Reactance via videotape using STS Clinical Form**
    - **Measured Directiveness via videotape (TPRS)**
    - **Outcome was Frequency (PDA) and Quantity (DDD) of drinking at one year-post treatment**

# Results—M & K, 2004

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- Directiveness has a negative effect on outcome among those with medium and high reactance—Support for STS
- Increased use of interpretation, confrontation, and control of topics was predictive of poorer outcome among medium and high reactive patients—Support for STS.

# Conclusions from Karno and Longabaugh

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- Patient and treatment variables contribute to the prediction of treatment effectiveness among Alcohol abusing patients.
- The match between treatment and patient variables adds additional power to the short and long term prediction of outcome among alcohol dependent patients.

# 13 Principles NOT on Miller's List— Participant and Treatment Factors

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1. Comorbidity is a predictor of poor outcome
2. Patient Avoidant Style is a predictor of Poor outcome
3. Therapist demographics and history of use does not enhance outcomes
4. Group Cohesion predicts benefit in group
5. Pt-Ther Agreement of goals predicts benefit
6. Technique only works within a strong relationship
7. Focus on Present Problems first
8. Assess progress repeatedly and adjust treatment
9. Relate patient's environmental problems to thoughts, feelings, and behavior

# Matching Principles Not on Miller's List

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10. Ther Control X Patient Resistance
11. Differential focus on Emotional Experience
12. TX Intensity X Impairment
13. Tx Focus X Coping Style

# 6 Miller Principles that are not in “Our” List—All are “Treatment”

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1. Identify behaviors early—Prin #1
2. Make Sobriety worthwhile—Prin #3
3. For Established Users, a Period of abstinence—Prin #5
4. Encourage use of 12-step program—Prin #9
5. Remove Reinforcement for drinking—Prin #11
6. Make Services Acceptable—Prin #15

# Points of Agreement

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1. Overcome Resistance/Enhance Motivation
2. Enhance Social Support
3. For more Established/Impairing problems, Expect to increase time and intensity
4. Relationship/Empathy is central to treatment
5. Involve social/family support systems
6. Think outside of the skin—social and employment factors of risk
7. Use Evidence-based interventions

# Conclusions

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- Treatments that rely on Principles of change are reasonable alternatives to Model driven manuals or isolated relationship variables in facilitating treatment effectiveness.
- Principles of Change can be effectively applied to the treatment of patients with chemical use problems.
- Principles that relate to participant factors, relationship factors, treatment factors, and the fit of treatment to patient, all contribute independent power to enhancing treatment.

# Integrating Principles of Change

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- Objectives of Training in Integrated Treatment
  1. To learn to identify patient characteristics that have empirically been demonstrated to respond differentially to different therapies or interventions; and
  2. Learn to competently apply those therapies and interventions in a comprehensive way, independently of the theories that spawned them.