Technology Transfer

A Community-Based Treatment Perspective

Patrick M. Flynn, Ph.D.

Deputy Director
Institute of Behavioral Research, Texas Christian University
February 2, 2006

For more information, see www.ibr.tcu.edu

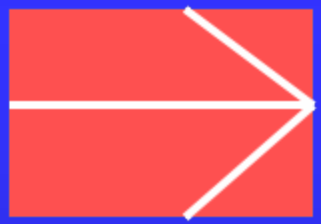
TCU © 2005

Services Research

A multidisciplinary field of scientific inquiry that:

Examines how:

- Social Factors
- Financing
- Organization
- Management
- Technologies
- Behaviors/Beliefs



Affect health care:

- Demand
- Accessibility
- Utilization
- Quality
- Effectiveness
- Costs

For individuals & families, organizations & institutions, communities & populations

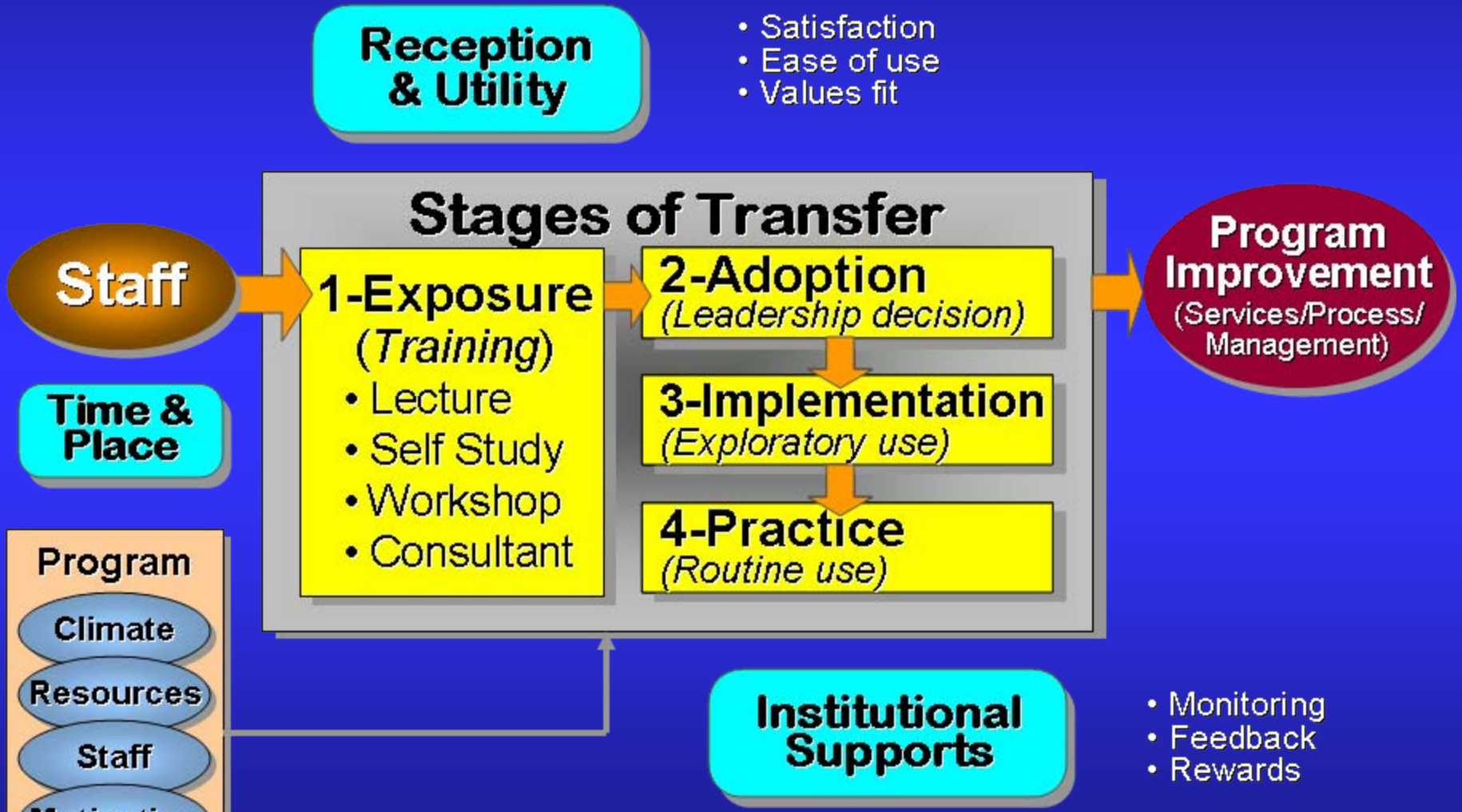
http://www.nida.nih.gov/about/organization/despr/HSRDef.html

TCU © 2005

How do organizations change practice ?

TCU
© 2005

Program Change Model



Simpson, 2002 (J Substance Abuse Treatment)

TCU © 2005

1-Exposure (*Training*)
- Lecture
- Self Study
- Workshop
- Consultant

Exposure

- **National Registry for Evidence-Based Programs & Practices (EBP)**
  - ✓ List/Library of available EBPs
- **EBPs & Materials**
  - ✓ Complexity/receptivity/utility/transportability
  - ✓ "Evidence-based practice developers and researchers must clearly demonstrate the relevance of their intervention to frontline clinicians." (McGovern et al., 2004)

TCU © 2005

Exposure (continued)

Training

- ✓ Training workshops & on-site visits better than just written materials (Sorensen et al., 1988)
- ✓ Interpersonal strategies

Networks

- ✓ ATTCs national network as a vehicle for transfer

Utilization

- ✓ Level of organizational functioning is related to utilization of training
- ✓ Staff attitudes predict utilization

TCU © 2005

2-Adoption
(Leadership decision)

Adoption

- **Readiness of EBP for transfer (values & goals)**
  - ✓ EBP must be acceptable to clients
  - ✓ (Gotham, 2004)
  - ✓ Must fit within therapeutic orientation and skills of users (Simpson, 2002)
  - ✓ Must demonstrate relevance of intervention to frontline clinicians (McGovern et al., 2004)

TCU
© 2005

Adoption (continued)

- **Readiness of EBP for transfer (values & goals)**
  - ✓ Importance of fit between EBP and organizational dynamics (Klein & Sorra,1996)
  - ✓ Compatibility of the EBP with existing social system (Rogers,1995)
- **Predictors**
  - ✓ Counselor characteristics are related to adoption

TCU © 2005

3-Implementation
(Exploratory use)

Implementation Issues

- **Using/applying innovations as designed and tested**
  - ✓ reinvention—" the degree to which an innovation is changed or modified by a user in the process of its adoption and implementation" (Rogers 1995)
  - ✓ degree of "drift" from original and level of tolerance before need for new evidence (Kelly et al., 2000)
  - ✓ maintain core components to insure fidelity

TCU © 2005

Implementation Issues (continued)

- **Post-training technical assistance, supervision, follow-up experiences, adherence, and boosters**

- **Cost/support/incentives**
  - ✓ "Reimbursement is gradually being tied to the delivery of" EBPs (Miller, Zweben, & Johnson, 2005)

TCU © 2005

Implementation Issues (continued)

- **Counseling Staff Attributes**
  - ✓ personal attributes are related to implementation and adoption
- **Organizational Characteristics**
  - ✓ organizational climates are related to implementation and adoption

TCU © 2005

4-Practice
(Routine use)

Practice

➢ Incorporating innovations into regular use

- ✓ obtain baseline measure(s)
- ✓ outcomes/effects of EBPs
- ✓ costs
- ✓ institutional supports & resources

➢ Sustaining the practice

- ✓ performance assessments and feedback
- ✓ staff turnover/retraining
- ✓ supervision & continuing education/booster sessions
- ✓ institutional supports & resources

TCU
© 2005

The Research to Practice Gap

"To close this breach, more attention is being directed toward the characteristics of treatment organizations and the ways in which treatment settings affect the adoption of technologies."

(Fuller, Rieckmann, McCarty, Smith, & Levine, 2005)

TCU
© 2005

Organizational functioning

Technology Transfer

Treatment delivery

TCU
© 2005

How do we study technology transfer as a science unto itself ?

TCU
© 2005

TCOM

Treatment Costs and Organizational Monitoring

Sponsored by:

NIDA NATIONAL INSTITUTE ON DRUG ABUSE

100 Adult Outpatient Drug-Free Programs

5-Year Study of Community-Based Providers

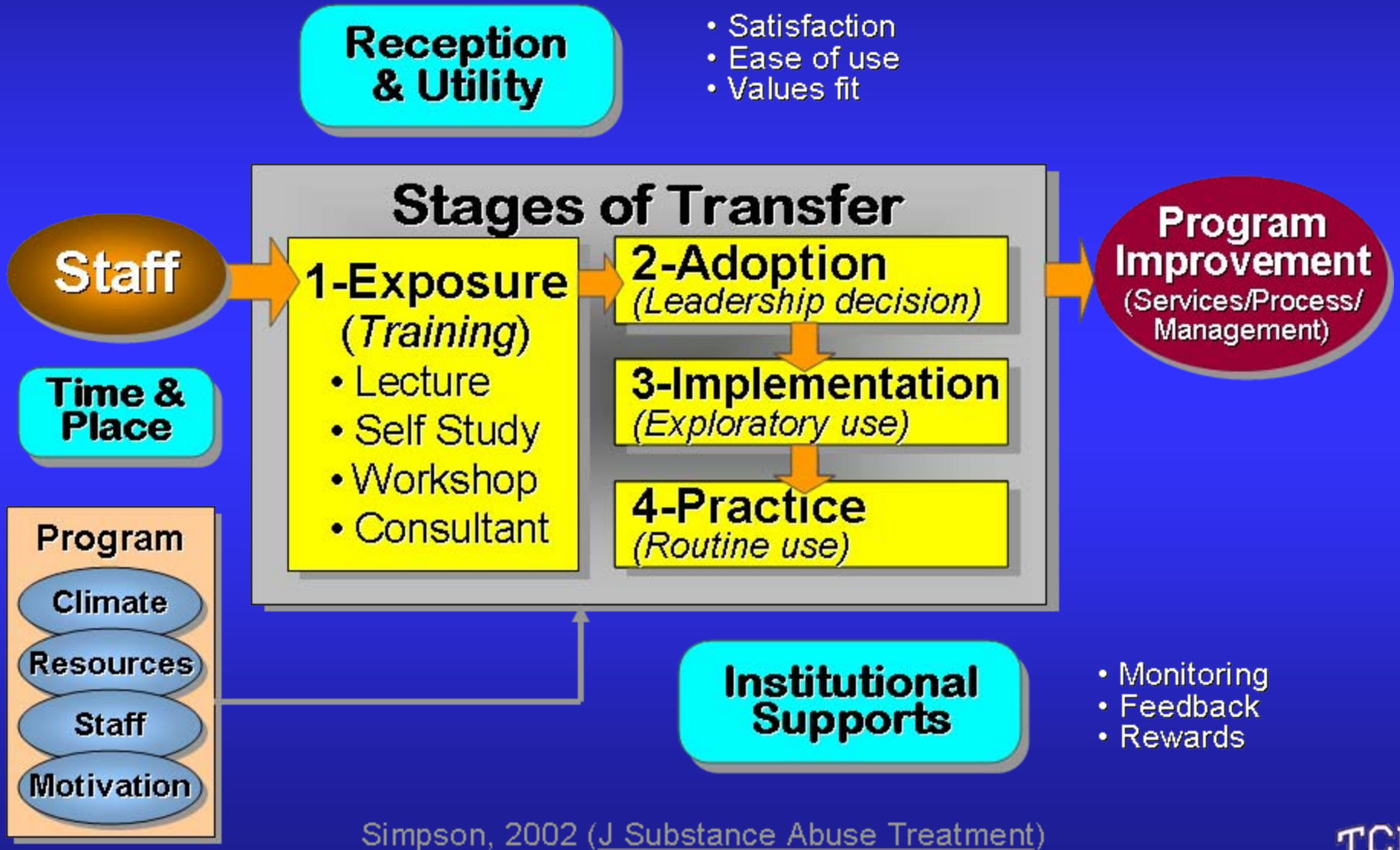
TCU © 2005

TCOM Goals

- Develop a *system* to provide meaningful, evidence-based information about a program's well being
- Move it from *research to practice*

TCU © 2005

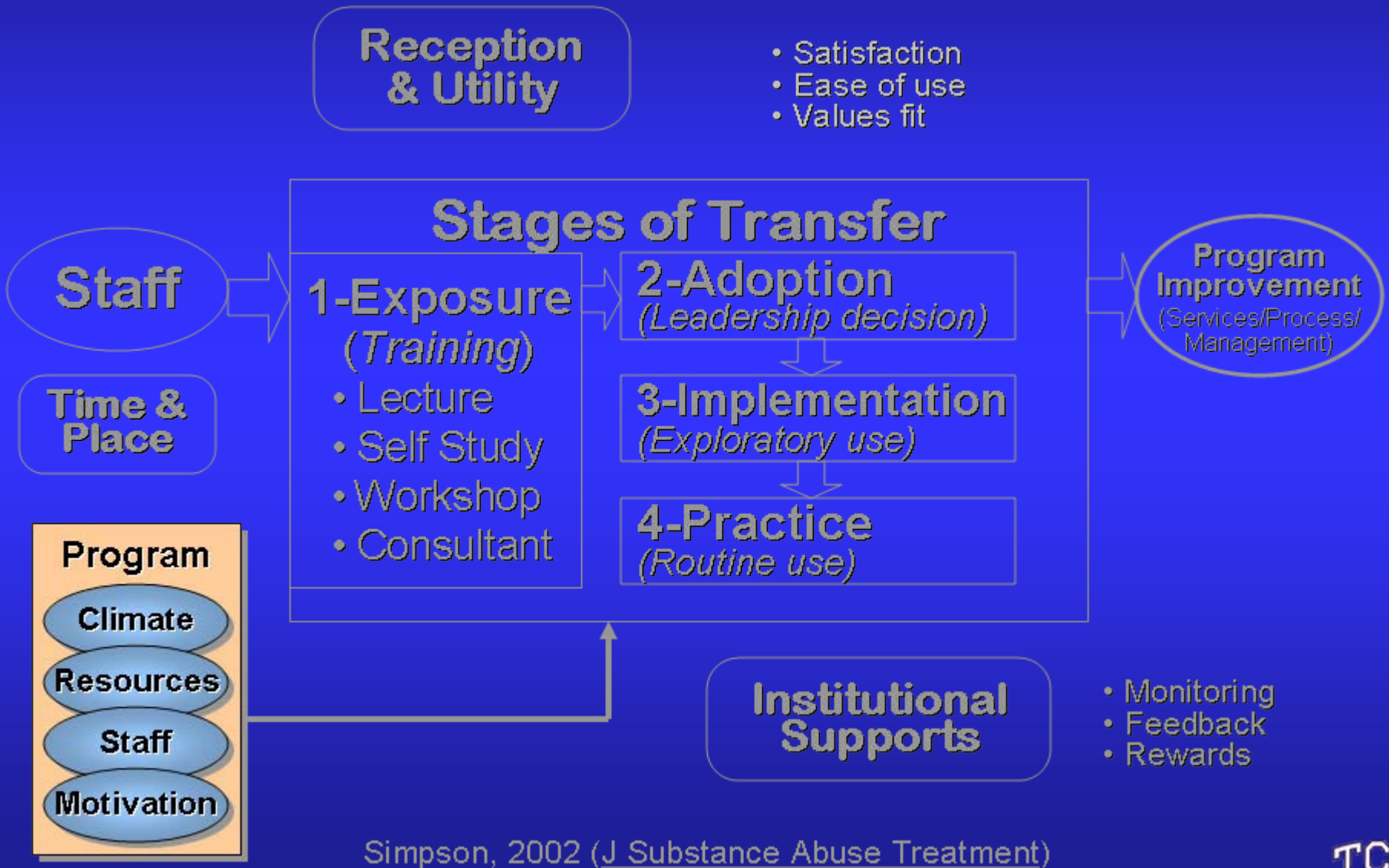
Program Change Model



Simpson, 2002 (J Substance Abuse Treatment)

TCU © 2005

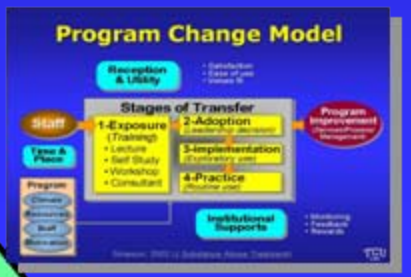
Program Change Model



Simpson, 2002 (J Substance Abuse Treatment)

TCU © 2005

Systems Infrastructure for Treatment Process and Change



Positive Outcomes

Treatment Process

Program Change

Program

- Climate
- Resources
- Staff
- Motivation

Program Structure

Organizational Climate

Program Resources

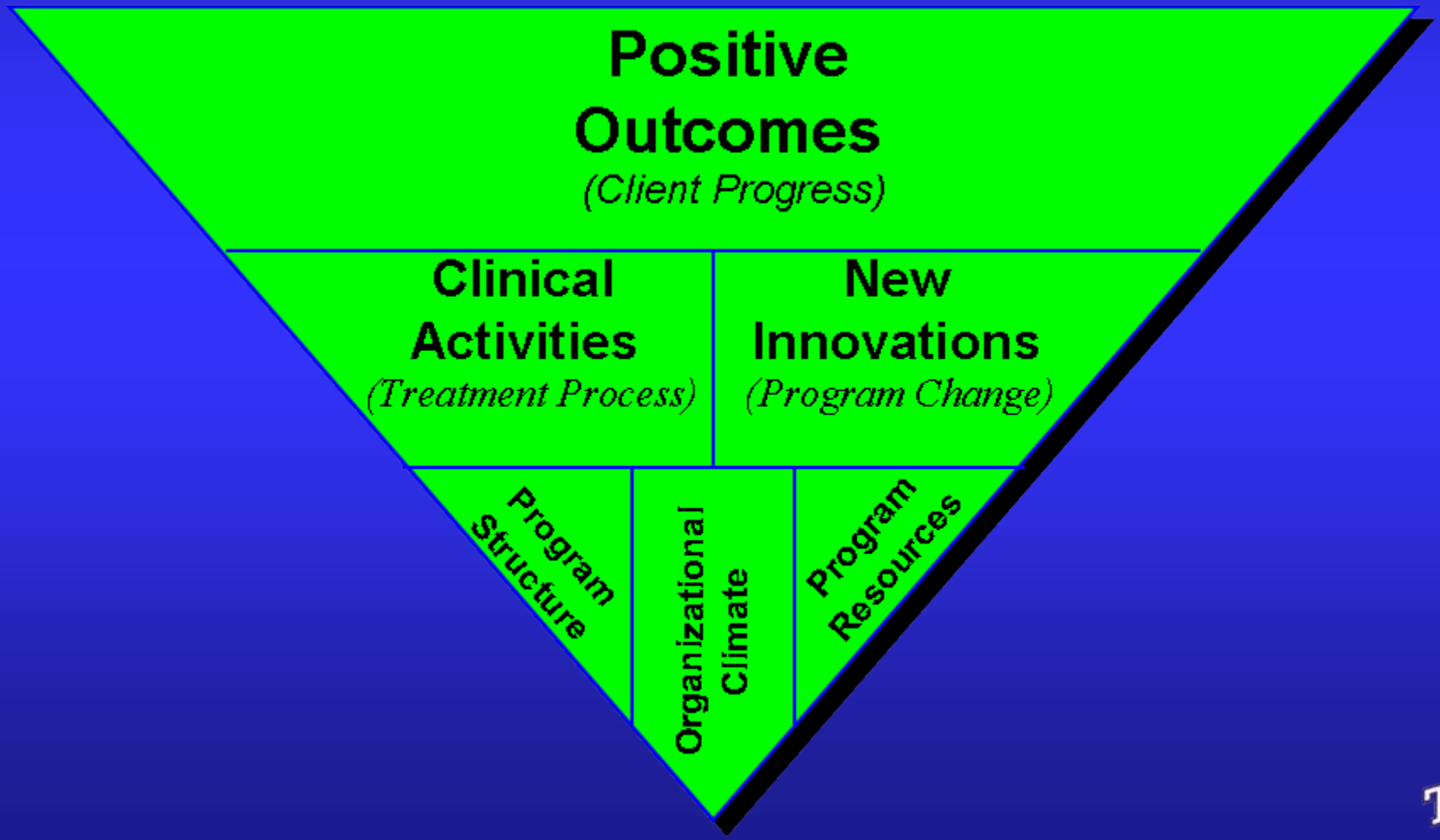
TCU
© 2005

Conceptual Model of Organizational Foundations for Treatment Process and Change

TCU
© 2005

Research Basis for Conceptual Model

Relative Number of Studies



TCU
© 2005

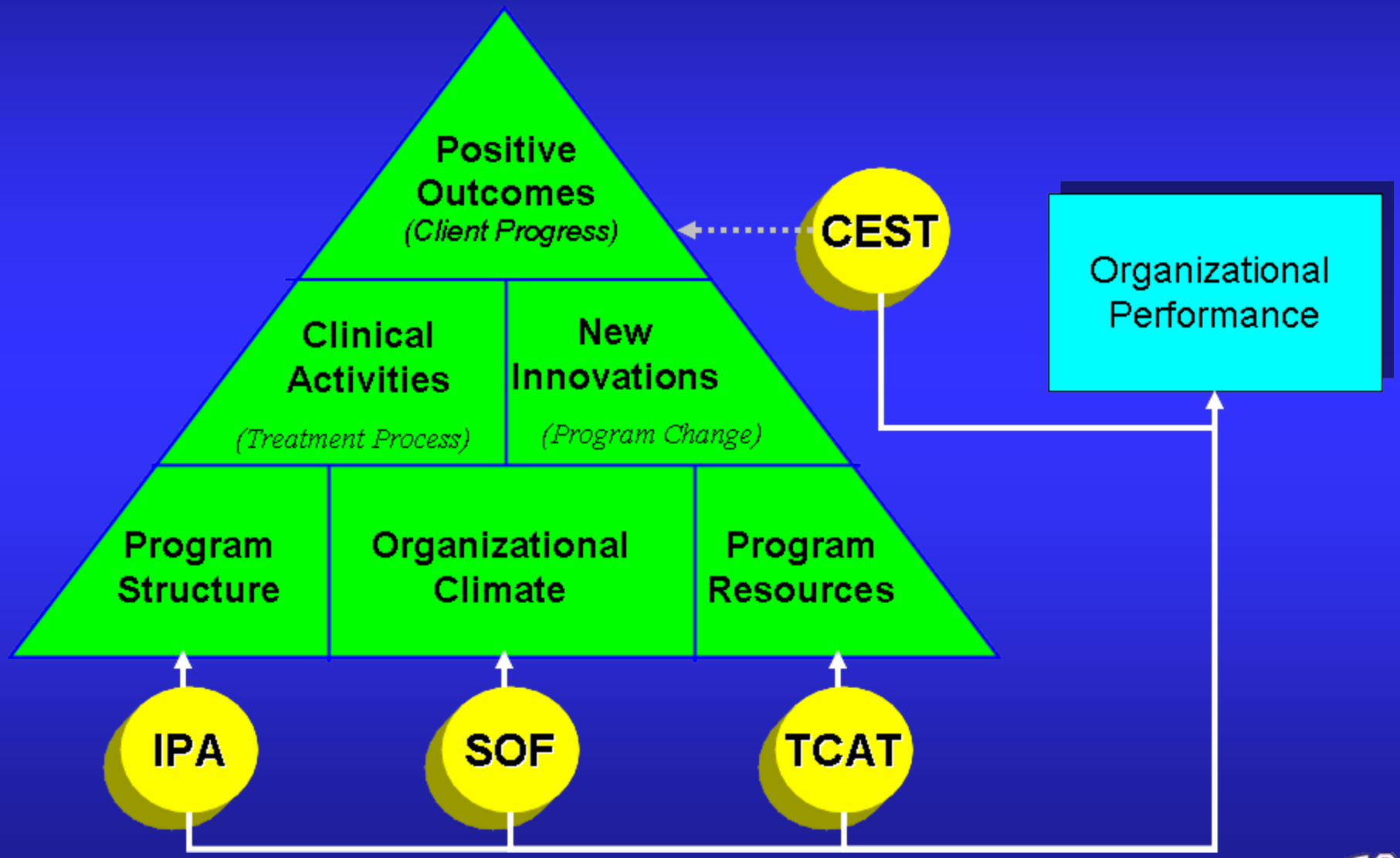
Assessments

- Initial Program Assessment (IPA)
- Survey of Organizational Functioning (SOF)
- Client Evaluation of Self & Treatment (CEST)
- Treatment Cost Analysis Tool (TCAT)

Research to Practice

TCU
© 2005

Assessment Model of Organizational Foundations for Treatment Process and Change



TCU
© 2005

Assessments

- Survey of Organizational Functioning (SOF)
- Client Evaluation of Self & Treatment (CEST)
- Treatment Cost Analysis Tool (TCAT)

TCU © 2005

Organizational Functioning

Climate:
- Mission
- Cohesion
- Autonomy
- Communication
- Stress
- Change

Resources:
- Offices
- Staffing
- Training
- Equipment
- E-Communications

Staff:
- Growth
- Efficacy
- Influence
- Adaptability

Motivation:
- Program Needs
- Training Needs
- Pressures

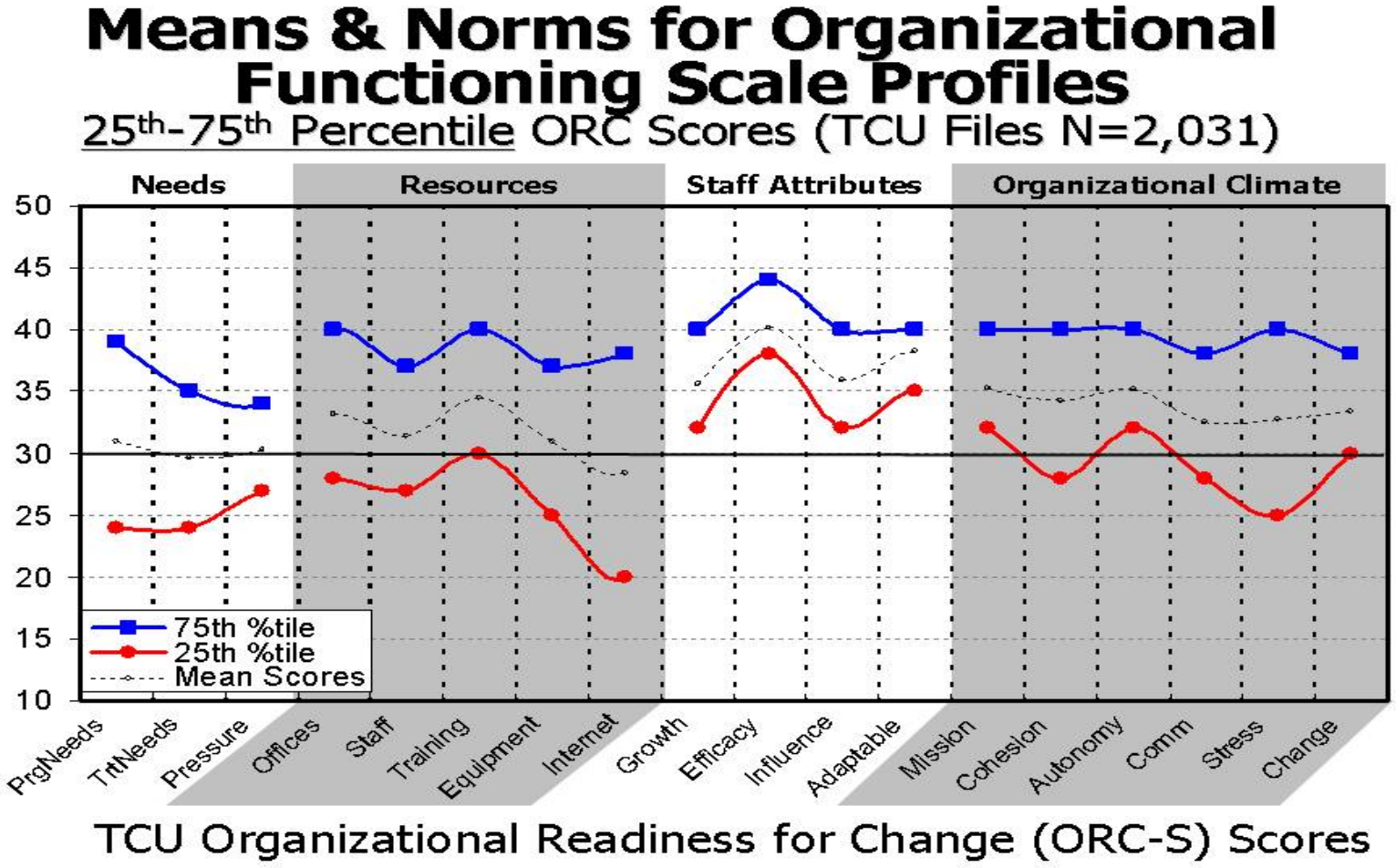
Job Attitudes:
- Burnout
- Satisfaction
- Director Leadership

Workplace Practices:
- Peer Collaboration
- Deprivatized Practice
- Collective Responsibility
- Focus on Outcomes
- Reflective Dialogue
- Counselor Socialization

Simpson, 2002 (J Substance Abuse Treatment)

TCU © 2005

Organizational Functioning & Readiness
(based on Staff ratings)



TCU
© 2005

Assessments

- Survey of Organizational Functioning (SOF)
- Client Evaluation of Self & Treatment (CEST)
- Treatment Cost Analysis Tool (TCAT)

TCU © 2005

Client Evaluation of Self & Treatment (CEST)

Psychosocial

A. Motivational
B. Psychological
C. Social

Treatment Engagement

A. Treatment Participation
B. Treatment Satisfaction
C. Counseling Rapport

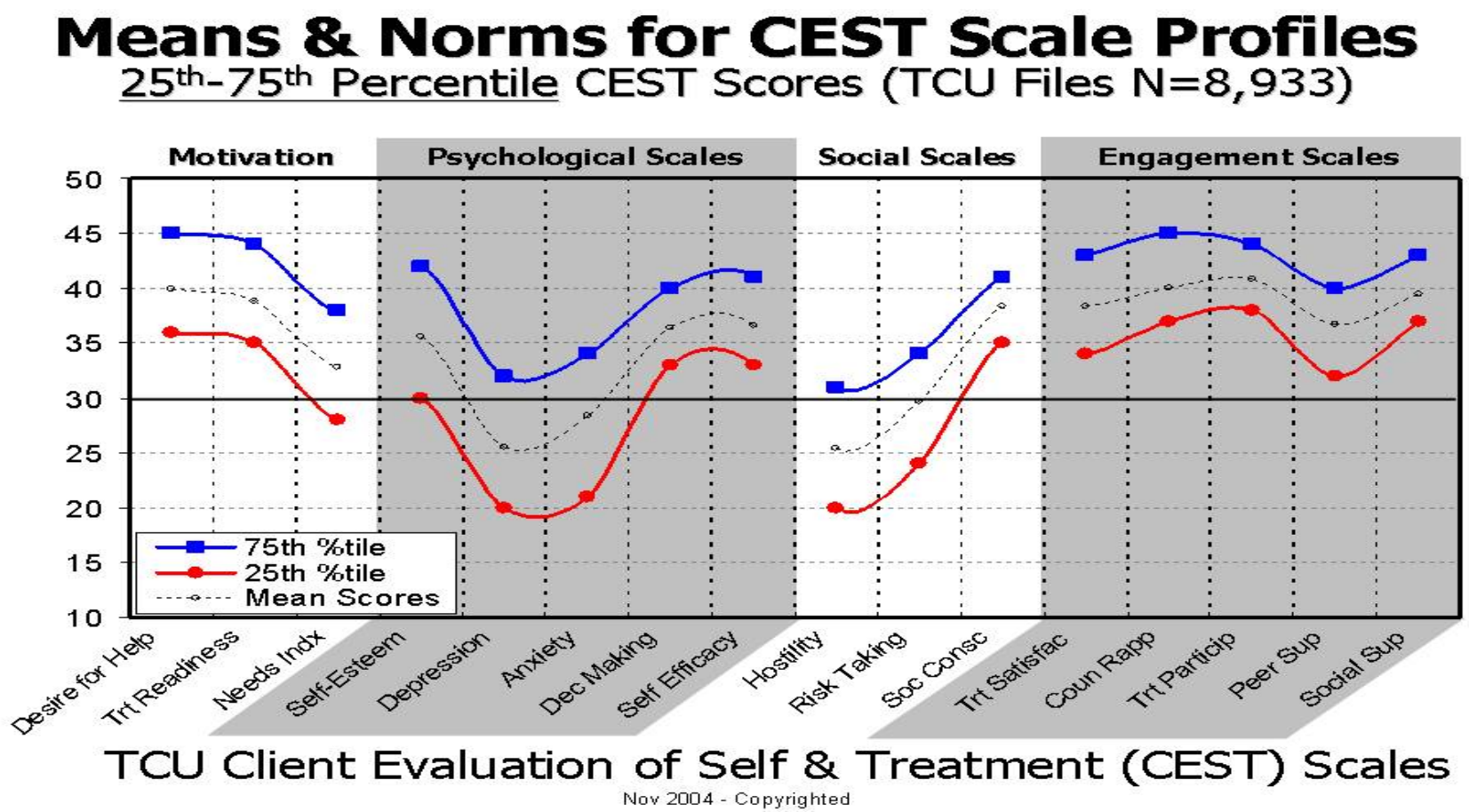
- 6-8 item scales
- Scores = 10-50
  (5-pt Agree-Disagree)
- α = .70 - .90
- Validity evidence

D. Peer Support (Clients)
E. Social Support (Family/Friends)

Joe, Broome, Rowan-Szal, & Simpson, 2002 (J Substance Abuse Treatment)

TCU © 2005

Client Engagement & Functioning in Treatment (for Client & Program)



TCU © 2005

Assessments

- Survey of Organizational Functioning (SOF)
- Client Evaluation of Self & Treatment (CEST)
- Treatment Cost Analysis Tool (TCAT)

TCU © 2005

Treatment Cost Analysis Tool (TCAT)

- ADSS (Brandeis) Methodology
- MS Excel-Based Workbook
- Linked Worksheets
  - basic facility information
  - facility data (e.g. finances, client flow)
  - personnel costs
  - unit costs
  - economic costs
  - cost analyses
  - feedback (charts/graphics)

TCU © 2005

Sample Program Cost Reports

Texas Christian University
Treatment Costs and Organizational Monitoring (TCOM) Project

Source Codes - Documented Data
MIS=Management Information
AFS=Audited Financial Statement
AR=Annual Report
OD=Other Documentation

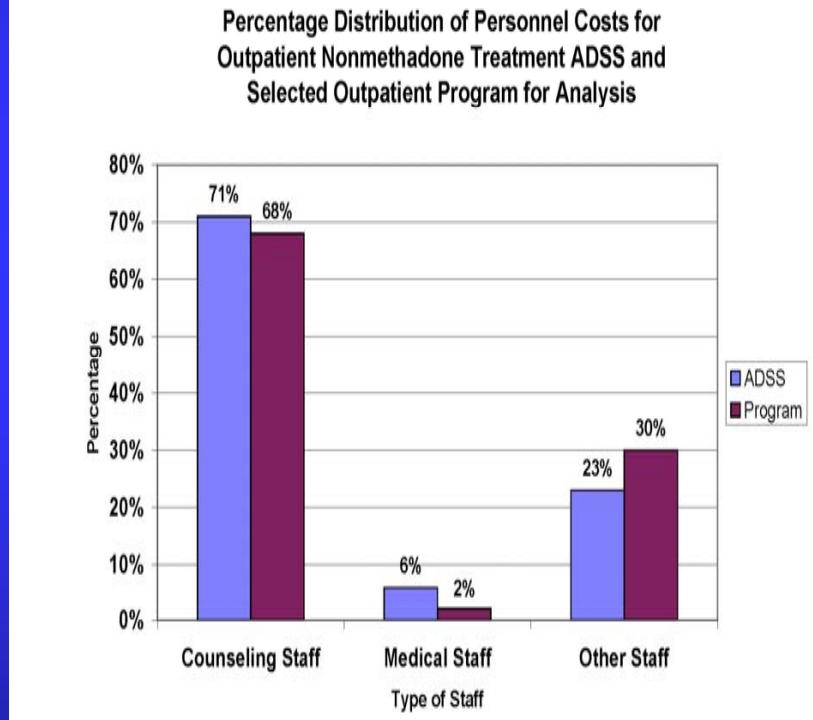
Source Codes - Adjustments and Estimates
ADJ=Adjustment of Documented Data
IE=Internal Estimate
EE=External Estimate

Page 11 - Key Data Summary (NO DATA ENTRY)

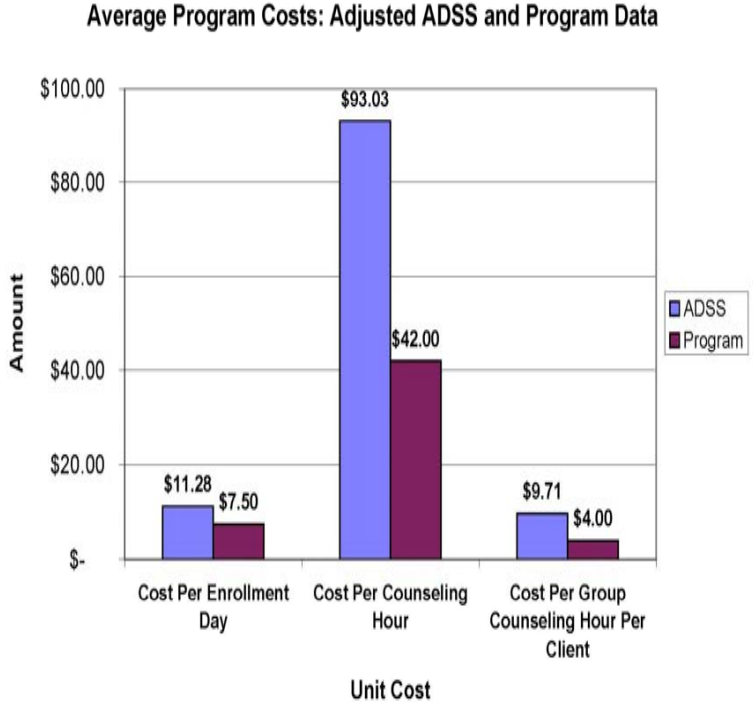
Page Navigation
Go to Overview Page <<<<<< Back Next >>>>>>

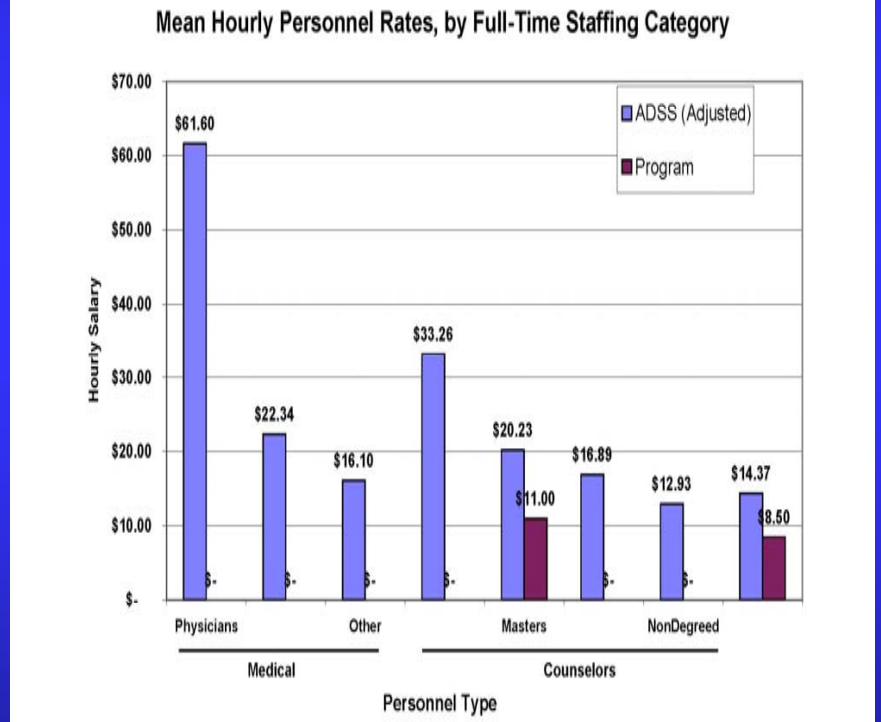
		Data Items	
1	Active Client Count	124	
2	Annual Admission Count	372	
3	Annual Discharge Count	372	
4	Average Length of Stay (Calendar Days)	124	
5	Total Costs of the Parent Treatment Facility/Organization Costs (including all sibling costs)	31,844,851	
6	Total Costs of the Identified Treatment Program for Cost Analysis		
	Total Personnel Services Costs	$ 378,285	Proportion of Costs to Total Derived Costs
7	Combined Total for Capital, Other Non-Personnel	$ 272,822	
8	Purchased, and Donated Items	$ 105,463	72%
			28%
9	Total Derived Costs	$ 378,285	100%
10	Cost Per Episode* (from Admissions)	1016.895161	N/A
11	Cost Per Enrolled Client Day** (from Admissions)	8.20076743	N/A
12	Cost Per Counseling Hour***	46.4682598	N/A
13	Cost Per Group Counseling Hour Per Client****	4.224387255	N/A

* Cost Per Episode is calculated as Total Costs of the Program/Total Admissions
** Cost Per Enrolled Client Day is calculated as (Total Costs of the Program/Total Admissions)/Average Length of Stay
***Cost Per Counseling Hour is calculated as Total Costs of the Program/Total Counseling Hours Provided
****Cost Per Group Counseling Hour Per Client is calculated as Cost Per Counseling Hour/Mean Number of Clients Per Group



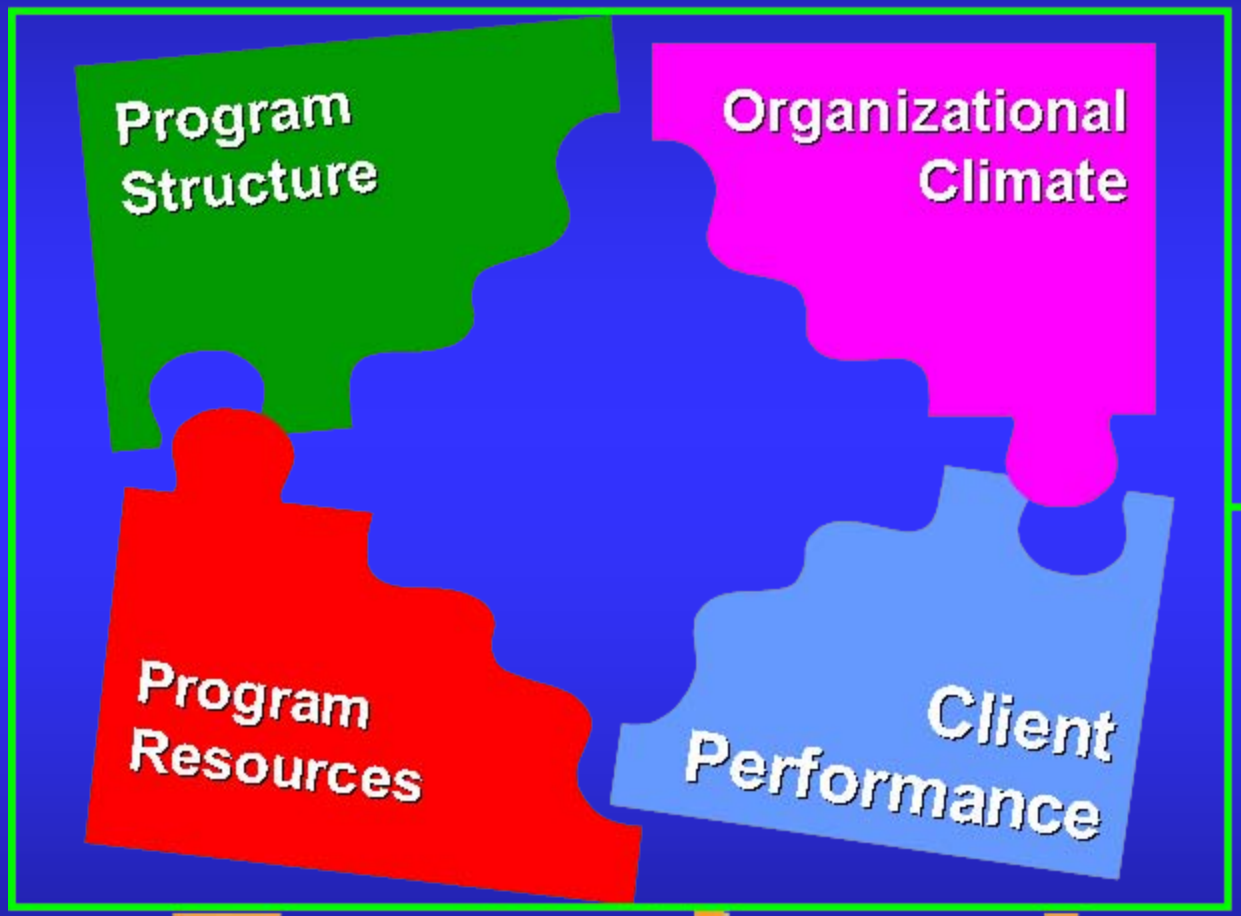
Sample Program Cost Reports





TCU © 2005

Putting it



Information System

Together !

TCU
© 2005

Institute of Behavioral Research at Texas Christian University

TCU

IBR HOME PAGE

- WHAT'S NEW
- ABOUT IBR
- RESOURCE COLLECTIONS
- STAFF
- PROJECTS
- NEWSLETTERS
- PUBLICATIONS
- PRESENTATIONS
- MANUALS
- FORMS
- OTHER LINKS

SITE GUIDES:

- Search
- Contents
- Site map

Selected Presentations

A National Research Center for addiction treatment studies in community and correctional settings

- **TCU Treatment System Overviews**
  - *Conceptual Models*
  - *Intervention Manuals*
  - *Assessment Instruments*
- **Research Status Reports on –**
  - *Treatment Planning*
  - *Client/Program Monitoring*
  - *Organizational Functioning*
  - *CJ-Based Tx Systems*
  - *Tx Cost Calculations*
- **New Publications (Abstracts), Presentations, & Newsletters**

www.ibr.tcu.edu

Resource Collections

- Overview
- National Evaluations
- Correctional Evaluations
- Treatment Process
- Counseling Manuals
- Cognitive Interventions
- Organizational Functioning
- Assessment Systems
- Assessment Fact Sheets

DATOS

TCU © 2005

Fuller, B.E., Rieckmann, T., McCarty, D., Smith, K.W., & Levine, H. (2005). Adoption of naltrexone to treat alcohol dependence. Journal of Substance Abuse Treatment, 28, 273-280).

Gotham, H.J. (2004). Diffusion of mental health and substance abuse treatments: Development, dissemination, and implementation. Clinical Psychology: Science and Practice, 11, 160-176.

Kelly, J. A., Heckman, T, G,, Stevenson, L. Y., Williams, P. N., Ertl, T., Hays, R. B., Leonard, N. R., O'Donnell, L., Terry, N. A., Sogolow, E.D., & Neumann, M. S. (2000). Transfer of research-based HIV prevention interventions to community service providers: Fidelity and adaptation. *AIDS Education and Prevention, 12* (Supplement A), 87-98.

Klein, K.J., & Sorra, J.S. (1996). The challenge of innovation implementation. *Academy of Management Review*, 21 (4), 1055-1080.

McGovern, M.P., Fox, T.S., Xie, H., & Drake, R.E. (2004). A survey of clinical practices and readiness to adopt evidence-based practices: Dissemination research in an addiction treatment system. Journal of Substance Abuse Treatment, 26, 305-312.

Miller, W.R., Zweben, J., & Johnson, W.R. (2005). Evidence-based treatment: Why, what where, when, and how? Journal of Substance Abuse Treatment, 29, 267-276.

Rogers, E. M. (1995). *Diffusion of Innovations*. (4th ed.). New York: The Free Press.

Simpson, D.D. (2002). A conceptual framework for transferring research to practice. *Journal of Substance Abuse Treatment*, 22, 171-182.

Sorensen, J.L., Hall, S.M., Loeb, P., Allen, T., Glaser, E.M., & Greenberg, P.D. (1998). Dissemination of a Job Seeker's Workshop to drug treatment programs. *Behavior Therapy*, 19, 143-155.

TCU
© 2005