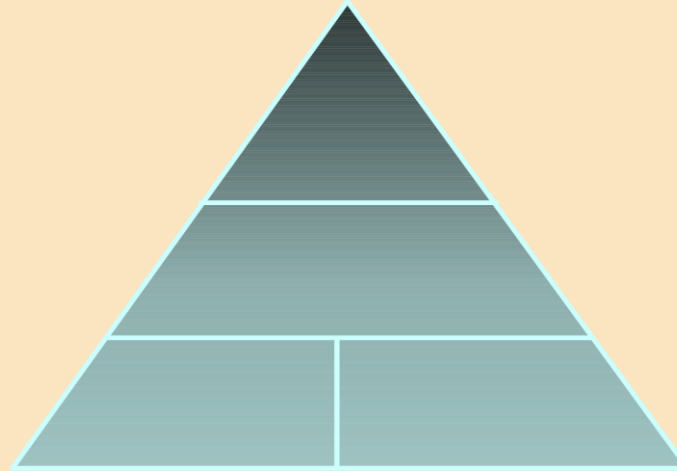# Applying CIP Career Theory to Enhance Career Development Outcomes and Design Effective Program Interventions

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Cognitive Information Processing (CIP) Theory

❖ 30-year history integrating theory, research, and practice

❖ CIP theory concepts are practical, easy to learn and apply, yet account for complexity

❖ Ultimate aim is to help individuals learn how to become skillful career problem solvers and decision makers

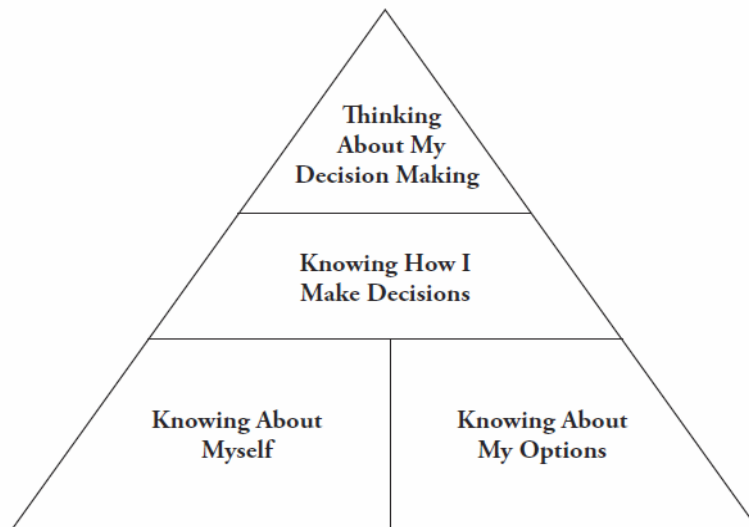❖ Research and practice applications that span the globe

Key CIP Concepts

❖ Pyramid of Information Processing Domains (**Knowing**)

❖ CASVE Cycle (**Doing**)

❖ Readiness for Career Choice Model

❖ Differentiated Service Delivery Model

Key CIP Theory Figures
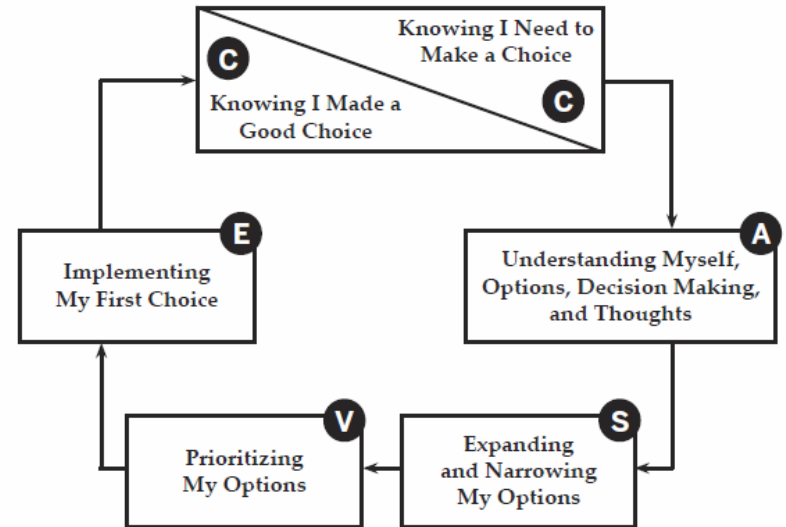

What's Involved in a Career Choice

A pyramid can be used to show what's involved in making a career choice

Thinking About My Decision Making

Knowing How I Make Decisions

Knowing About Myself

Knowing About My Options

What's Involved in a Career Choice

Adapted from: Sampson, J. P., Jr., Peterson, G. W., Lenz, J. G., & Reardon, R. C. (1992). A cognitive approach to career services: Translating concepts into practice. *Career Development Quarterly, 41*, 67-74.

A Guide to Good Decision Making

Knowing I Need to Make a Choice

C

Knowing I Made a Good Choice

C

Implementing My First Choice

E

Understanding Myself, Options, Decision Making, and Thoughts

A

Prioritizing My Options

V

Expanding and Narrowing My Options

S

The CASVE Cycle

Adapted from Sampson, J. P., Jr., Peterson, G. W., Lenz, J. G., & Reardon, R. C. (1992). A cognitive approach to career services: Translating concepts into practice. *Career Development Quarterly, 41*, 67-74.
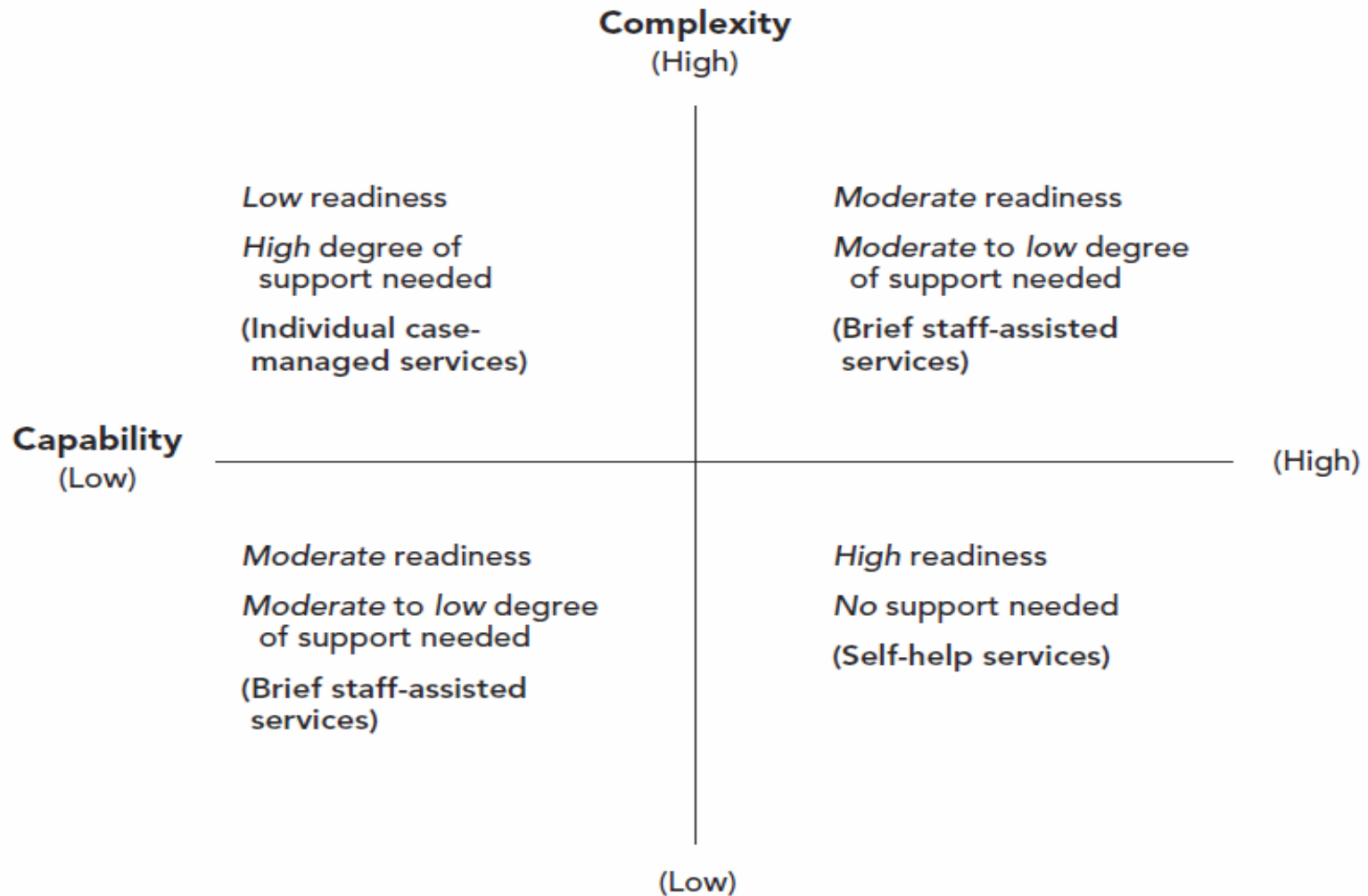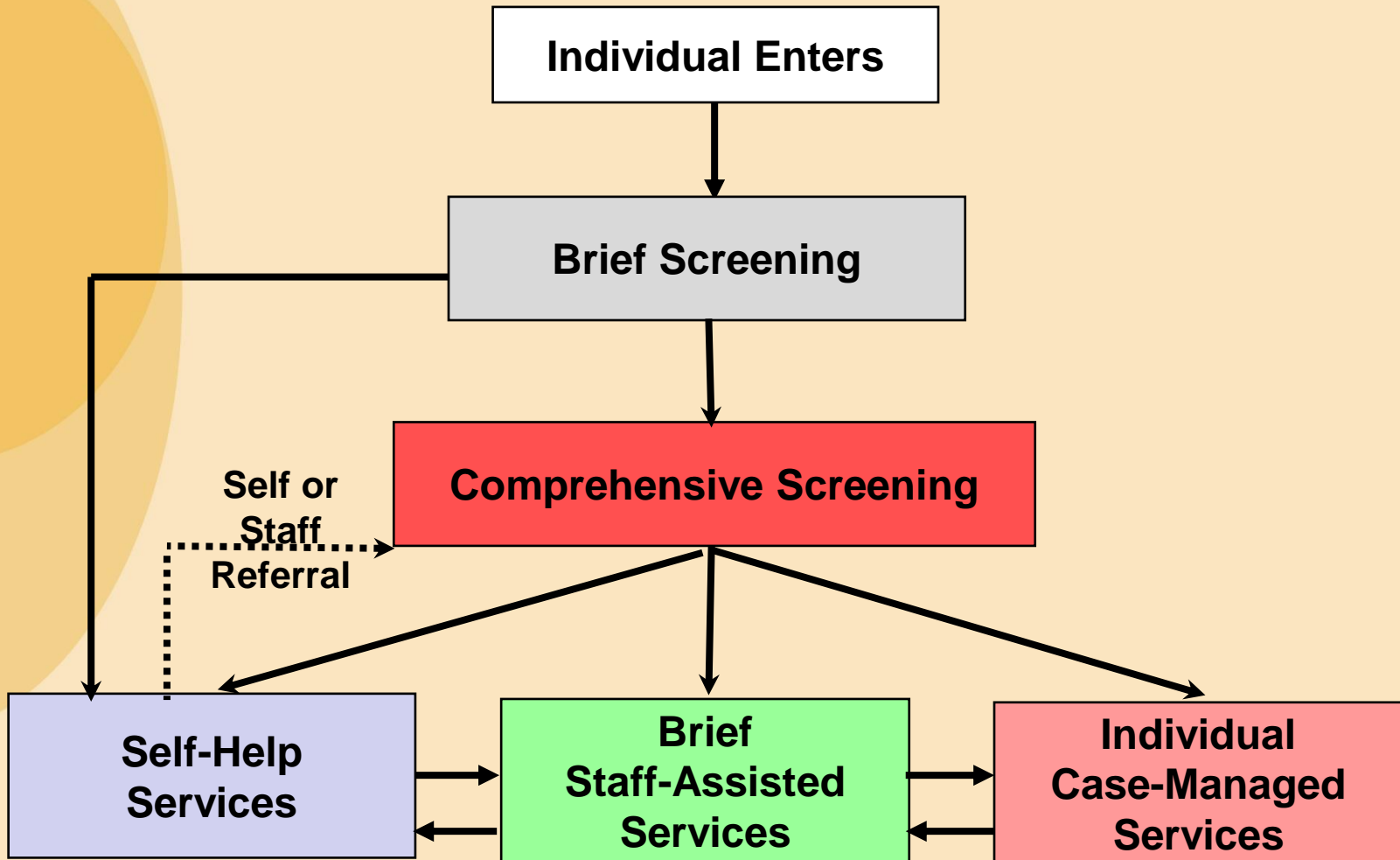
CIP Readiness Model

Complexity
(High)

Capability
(Low)

Low readiness

High degree of support needed

(Individual case-managed services)

Moderate readiness

Moderate to *low* degree of support needed

(Brief staff-assisted services)

(High)

Moderate readiness

Moderate to *low* degree of support needed

(Brief staff-assisted services)

High readiness

No support needed

(Self-help services)

(Low)

Sampson, J. P., Osborn, D. S., Bullock-Yowell, E., Lenz, J. G., Peterson, G. W., Dozier, V. C., Leierer, S. J., Hayden, S. C. W., & Saunders, D. E. (2020). *An introduction to CIP theory, research, and practice.* Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. http://purl.flvc.org/fsu/fd/FSU_libsubv1_scholarship_submission_1593091156_c171f50a

Differentiated Service Delivery Model for Delivering Career Interventions

Individual Enters

Brief Screening

Comprehensive Screening

Self or Staff Referral

Self-Help Services

Brief Staff-Assisted Services

Individual Case-Managed Services

Sampson, J. P., Osborn, D. S., Bullock-Yowell, E., Lenz, J. G., Peterson, G. W., Dozier, V. C., Leierer, S. J., Hayden, S. C. W., & Saunders, D. E. (2020). *An introduction to CIP theory, research, and practice.* Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. http://purl.flvc.org/fsu/fd/FSU_libsubv1_scholarship_submission_1593091156_c171f50a

Readiness Assessment

Screening instruments

Career Thoughts Inventory (CTI)

Career State Inventory (CSI)

Decision Space Worksheet (DSW)

help determine readiness for career decision-making and intervention and assistance level needed

Sampson, J. P., Osborn, D. S., Bullock-Yowell, E., Lenz, J. G., Peterson, G. W., Dozier, V. C., Leierer, S. J., Hayden, S. C. W., & Saunders, D. E. (2020). *An introduction to CIP theory, research, and practice*. Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. http://purl.flvc.org/fsu/fd/FSU_libsubv1_scholarship_submission_1593091156_c171f50a
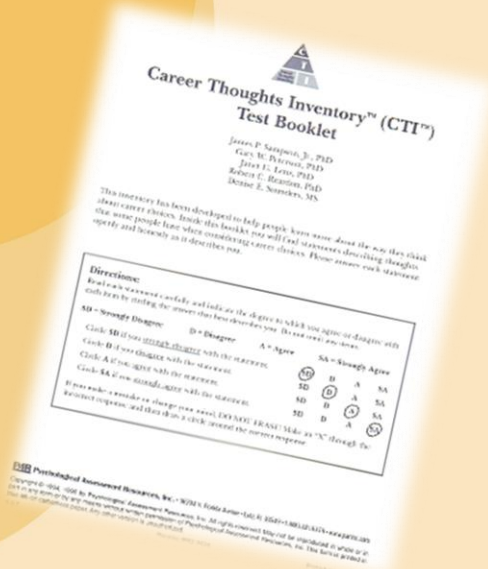
Connecting CIP Theory to the Eight Critical Ingredients of Effective Career Interventions

Based on meta-analysis and the career intervention literature:

Support - Providing support from practitioners and encouraging support from significant others

Assessment - Practitioner provision of individualized interpretation of self-assessments

Information - Providing career information

Psychoeducation - the steps involved in making a career choice and feedback on client plans and strategies

Writing - Completing workbooks and written exercises

Modeling - Modeling how individuals make choices and how they identify, obtain, and use information

Dosage – The amount of treatment necessary to produce an outcome

Intervention fidelity - A career intervention is delivered as designed

Sampson, J. P., Osborn, D. S., Bullock-Yowell, E., Lenz, J. G., Peterson, G. W., Dozier, V. C., Leierer, S. J., Hayden, S. C. W., & Saunders, D. E. (2020). *An introduction to CIP theory, research, and practice*. Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. http://purl.flvc.org/fsu/fd/FSU_libsubv1_scholarship_submission_1593091156_c171f50a

Evolution of CIP Theory

Permeable Pyramid Boundaries: Interacting domains
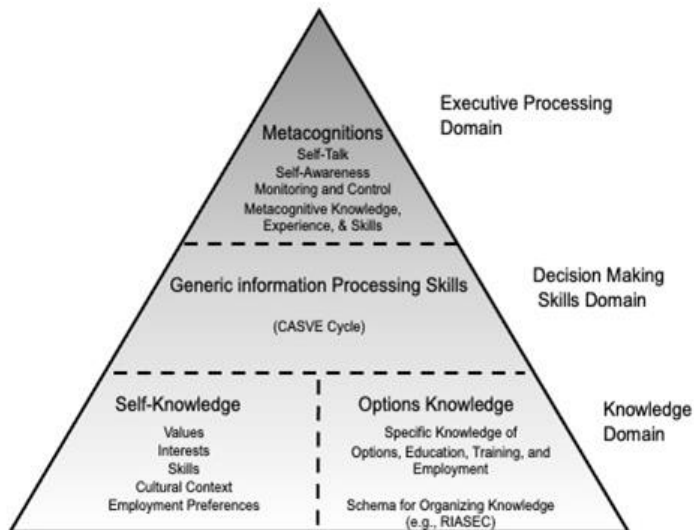
Further integration of

- ❖ **Cultural factors**
- ❖ **Identity**
- ❖ **Trauma**
- ❖ **Emotion**

Research Evidence

❖ Career interventions

❖ Diverse populations

❖ Assessments—CTI, CSI, CASVE Questionnaire, DSW

For more info on research, visit the [CIP bibliography website](#).

Research Evidence-Interventions

Intervention	Group	Outcomes
CIP-based courses	undergrads	• Decreased negative thinking • Increased GPA • Increased graduation rates • Decreased major changes and withdrawals
CIP-based groups	Middle school & college students; veterans; offenders	• CIP provided effective structure • Decreased negative self-talk • Satisfaction w/experience • Increased career development strategies • Increased knowledge of next steps • Increased career decision-making self efficacy
CIP Differentiated Service Delivery	International career centers; Drop-in advising; individual career counseling; self-help	• Satisfaction, vocational identity increases • Satisfaction w/services, knowledge of next steps • Applicability internationally

Research on CIP-based Undergraduate Career Class

TR-61: College Career Courses and Learner Outputs and Outcomes, 1976-2019

TR 59: Strategies for Developing, Managing, and Evaluating a Successful Career Course for 45 Years

TR 55: College Career Courses and Learner Outputs and Outcomes, 1976-2014

TR 53, 44: The Effects of College Career Courses on Learner Outputs and Outcomes

TR 43: Using Grades to Evaluate a Career Course

TR 34: Impact of a Career Course on Retention and Academic Performance

TR 31: Process Evaluation of a Career Course
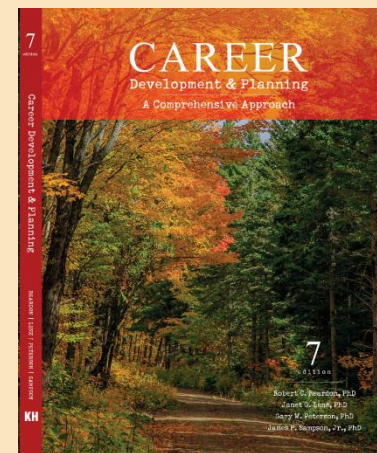
CIP Applications & Research with…

- Adults
- Athletes
- Diverse ethnicities & races
- International students
- Middle & HS students
- Offenders
- Persons with disabilities
- Undergraduates
- Unemployed adults
- Veterans

CIP-Based Assessment Research; Screening & Research Inventories

Established (20+ articles on its use):

- Career Thoughts Inventory
- Career State Inventory

Newer (1-3 articles):

- Decision Space Worksheet (DSW)
- CASVE-CQ
- CIP Questionnaire
- Career Outcome Measure Survey

In Development:

- Capability/Complexity Measure

Evidence for CIP's Pyramid Components

Interconnected nature of:
self-knowledge,
options knowledge,
decision-making and
executive processing
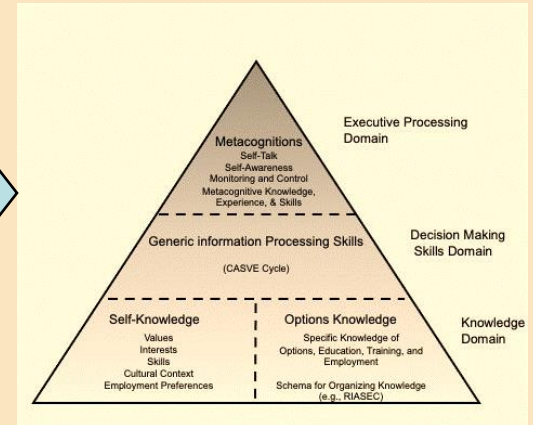
Pyramid Components:
Independent and Inter-related

Pretest, post test

	SK	OK	DCM
OK	.51, .57		
DCM	.53, .55	.62, .75	
EP	.54, .54	.45, 49	.49, .60

*Note: Career course showed significant gains in CIP pyramid v. comparison group (Osborn et al., 2020)

	SK	OK	DCM
OK	.76		
DCM	.70	.75	
EP	.61	.55	.74

Hayden & Osborn (2020), Turk workers

	SK	OK	DCM
OK	.51, .58		
DCM	.58, .60	.65, .75	
EP	.47, .64	.53, .64	.49, .75

Pretest, post test

90 students in career planning class, Osborn et al. (2022)

* All Correlations at $p < .001$

Client Outcomes

❖ What is the effect of a brief-assisted career counseling model on general outcomes?

❖ What are the attitudes of drop-in clients regarding the effectiveness of a brief-assisted career counseling model?

❖ What is the relationship between process characteristics and changes in outcome variables?

  ❖ (pre and post test scores on knowledge, confidence, anxiety; post test feelings, thoughts about counseling interactions, etc.)

Change Results (%)

	Positive (posttest>pretest)	Neutral (posttest=pretest)	Negative (posttest<pretest)
Knowledge (increased)	38	56	6
Confidence (increased)	27	64	10
Anxiety (decreased)	32 (reduced anxiety)	57	11 (increased anxiety)

Contributing to Client Outcomes

❖ Reducing negative thinking and anxiety

❖ Increasing confidence

❖ Connecting career, personality, and mental health factors, e.g., anxiety, depression, hopelessness, neuroticism, etc., to inform interventions

Social Justice and the Design of Career Interventions

❖ Supply of career services is insufficient in meeting current needs

❖ CIP's differentiated service-delivery model serves 60 to 63 percent more clients than traditional appointment-based individual career counseling

❖ Relying on appointment-based individual career counseling may create unintentional social injustice due to the limited number of people that are served

Designing Theory-based, Cost-Effective Program Interventions

- ❖ U.S. based and international applications
- ❖ Materials and assessments can be adapted to a variety of settings
- ❖ Provides greater access to career assistance
- ❖ NCDA monograph that highlights CIP-based program design (Sampson, 2008)
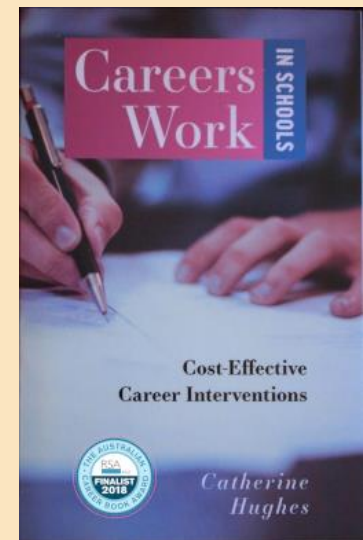
CIP Applications in Training & Supervision

❖ CIP can be used to train career practitioners in a diverse settings

❖ CIP provides a theory basis for effective counseling supervision

❖ CIP theory can be adapted for use in a wide variety of service delivery formats—**drop-in, individual counseling, groups, classroom instruction, virtual services**

Career Advisor

Handbook

The Career Center

CIP Bibliography

A Bibliography of CIP Theory, Research, and Practice*

January 28, 2022

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For Additional Information

Sampson, J. P., Osborn, D. S., Bullock-Yowell, E., Lenz, J. G., Peterson, G. W., & Dozier, V. C. (2020). *An introduction to CIP theory, research, and practice*. Florida State University, Center for the Study of Technology in Counseling and Career Development. https://purl.lib.fsu.edu/diginole/FSU_libsubv1_scholarship_submission_1593091156_c171f50a

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