

# Interventions for Couples Coping with Cancer-related Stress: Methodological Issues



Cancer Pole Ile-de-France  
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# Overview

## What is Intervention Research?

- + The Five Phases
- + Example: Partners in Coping Program

## How do you analyze Qualitative Data?

- + Qualitative analysis: Thematic analysis
  - + Example: Development of the model of Relational-Cultural Coping

# What is Intervention Research?

A systematic, problem-solving process that is utilized to create effective interventions for human services.

Other names:

Developmental Research

Social R & D

D & D Research

# What do we mean by an intervention?

- Core technologies of the helping professions
- A planned intrusion into life or environment of an individual, couple, family, or other unit that intends to bring about beneficial changes for the individuals or others involved



Making interventions without a design methodology is like building bridges without mechanical engineering

# Five Phases of Intervention Research

Problem Analysis



Design



Developmental Testing



Evaluation



Dissemination

\*based on Thomas (1984) model of D&D research in the human services



# Partners in Coping Program: Its Development and Evaluation



# Phase I: Problem Analysis

- Identifying problem, gathering and synthesizing information
- State-of-the-art review
- Determine feasibility of intervention and its innovation objectives
- Focus Groups

## Phase II: Design

Applying information to plan and create innovation

# Description of Partners in Coping Program

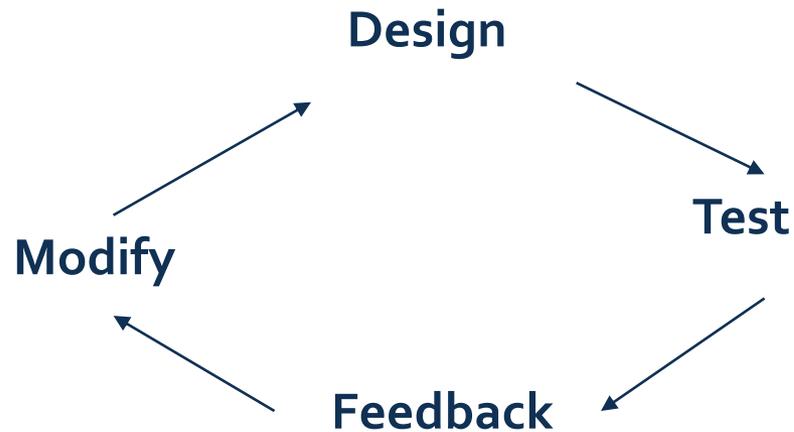
- + Social worker meets privately with couple for 9 sessions during first year of diagnosis
- + Intervention is based on a systemic-transactional theory of stress and coping (Bodenmann)
- + Utilizes Cognitive-Behavioral Techniques
- + Emphasis is on:
  - + Problem-solving
  - + Communication training
  - + Identifying dyadic coping styles
  - + Learning new coping strategies

# Topics of Sessions

1. Building social support network
2. Reallocating family tasks
3. Caring for children
4. Identifying dyadic coping patterns
5. Learning new coping skills
6. Facilitating couple communication
7. Fostering supportive exchanges
8. Enhancing intimacy and sexual functioning
9. Living with cancer

# Phase III: Developmental Testing

- Implement on a trial basis, test for its adequacy, and redesign as necessary
- Method: Series of single system evaluations



# Developmental Measures

- Post-session form (participants)
- Post-session developmental form and log (social worker)
- Dyadic coping scale (participants)
- Check sheet for treatment adherence (researcher)
- Pre- and post-program questionnaire (participants)

# Developmental Validity

## Definition:

- + determining when the intervention has reached an adequate level of validity
- + it has undergone enough testing and is adequate for widespread implementation and evaluation

# Criteria of Developmental Validity

- Effectiveness
  - Has the intervention produced any change?
- Efficiency
  - Does the intervention require time and costs that are not excessive?

- Patient Satisfaction

- Are the couples satisfied with the results produced by the intervention?
  - 74% of the interventions were rated as “very helpful” or “extremely helpful”

- Adequacy of Procedural Protocol

- Can the social worker follow the intervention procedure?
  - 91% treatment adherence

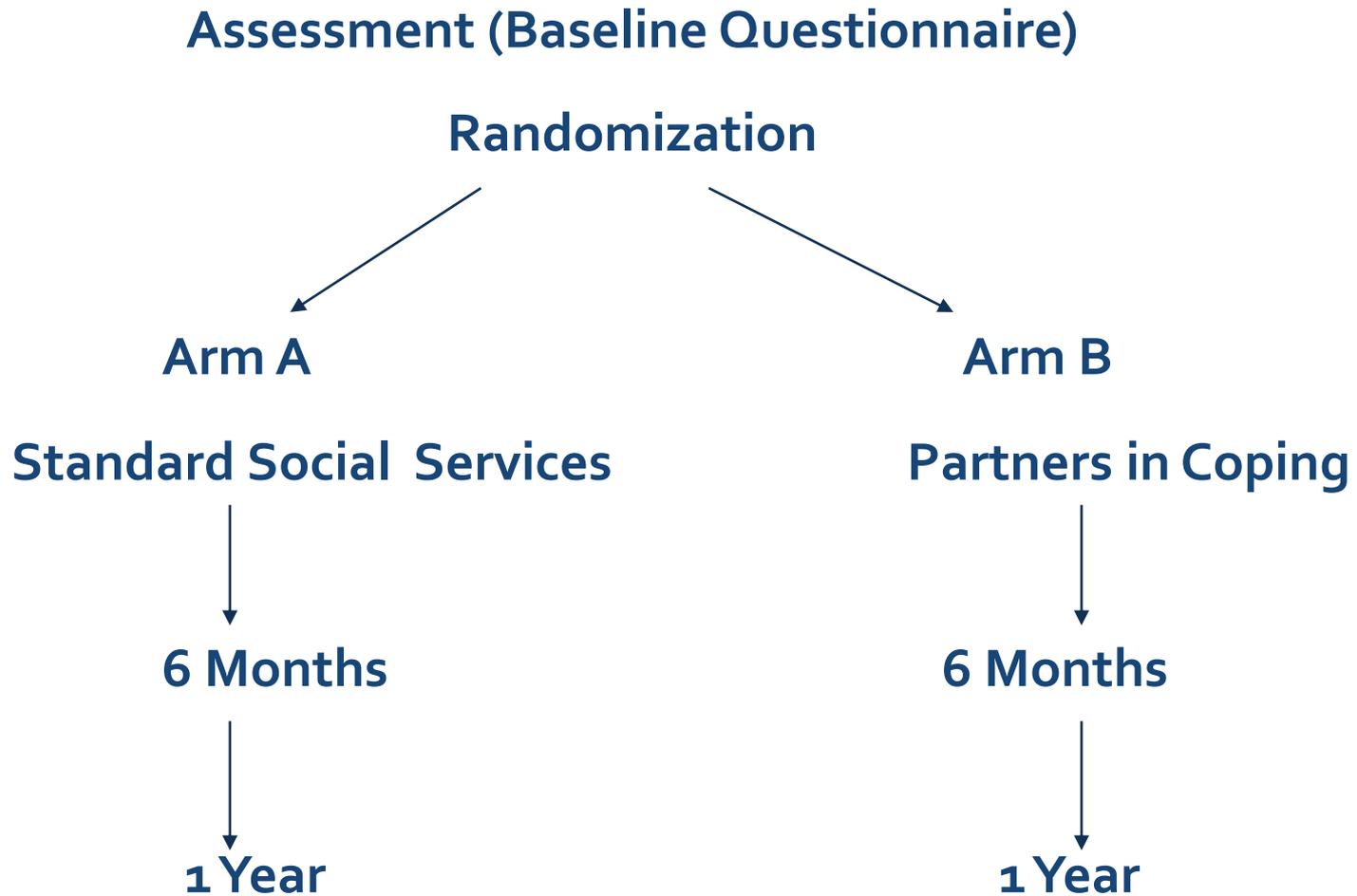
# Redesign Issues: Revisions to the Program

- Shortened assessment session
- Changed sequence of sessions
- Clarified instructions
- Deleted irrelevant material
- Added description of facilitating interventions
- Added instructions on crisis management

# Phase IV: Evaluation

- Evaluation
  - Empirical testing to determine effects of the innovation
  - Method: Randomized group design

# Research Procedures: Randomized Group Design



# Selection of Participants

## + Enrollment Criteria:

- + New diagnosis of breast cancer (within 3 months)
- + Currently receiving treatment (surgery, chemotherapy, radiation, or combination)
- + Married or in intimate relationship

# Description of Sample

(N=50 couples)

- + Average Age
  - + Patients: 46.9 years (s.d. 9.3)
  - + Partners: 49.0 years (s.d. 10.5)
- + Ave. Length of relationship: 19.7 (s.d. 13.0)
- + Children
  - + 78% had children; average #: 2
- + Married: 89%
- + Household Income: 70% over \$90,000
- + Education: 88% College graduates
- + Ethnicity: 90% Caucasian

# Type of Cancer Treatments

Chemotherapy	79%
Radiation	57%
Lumpectomy	75%
Mastectomy	47%
Transplant	4%
Tamoxifen	43%

Note. Participants could report more than one type of treatment.

# How did the Arms Compare on Quality of Life?

## Outcome Measures: Quality of Life

Patient:

+ Functional Assessment of Cancer Therapy

(Cella, Tulsky, Gray, Sarafin et al., 1993)

Partner:

+ Quality of Life Questionnaire for Spouses

(Ebbesen, Guyatt, McCartner, & Oldridge, 1990)

+ Illness Intrusiveness Rating Scale

(Devins et al., 1997)

# How did the Two Arms Compare on Dyadic Coping?

Outcome Measure: Dyadic Coping  
Inventory (Bodenmann, 1997)

Common Dyadic Coping

Positive Dyadic Coping

Hostile Dyadic Coping

Avoidance Dyadic Coping

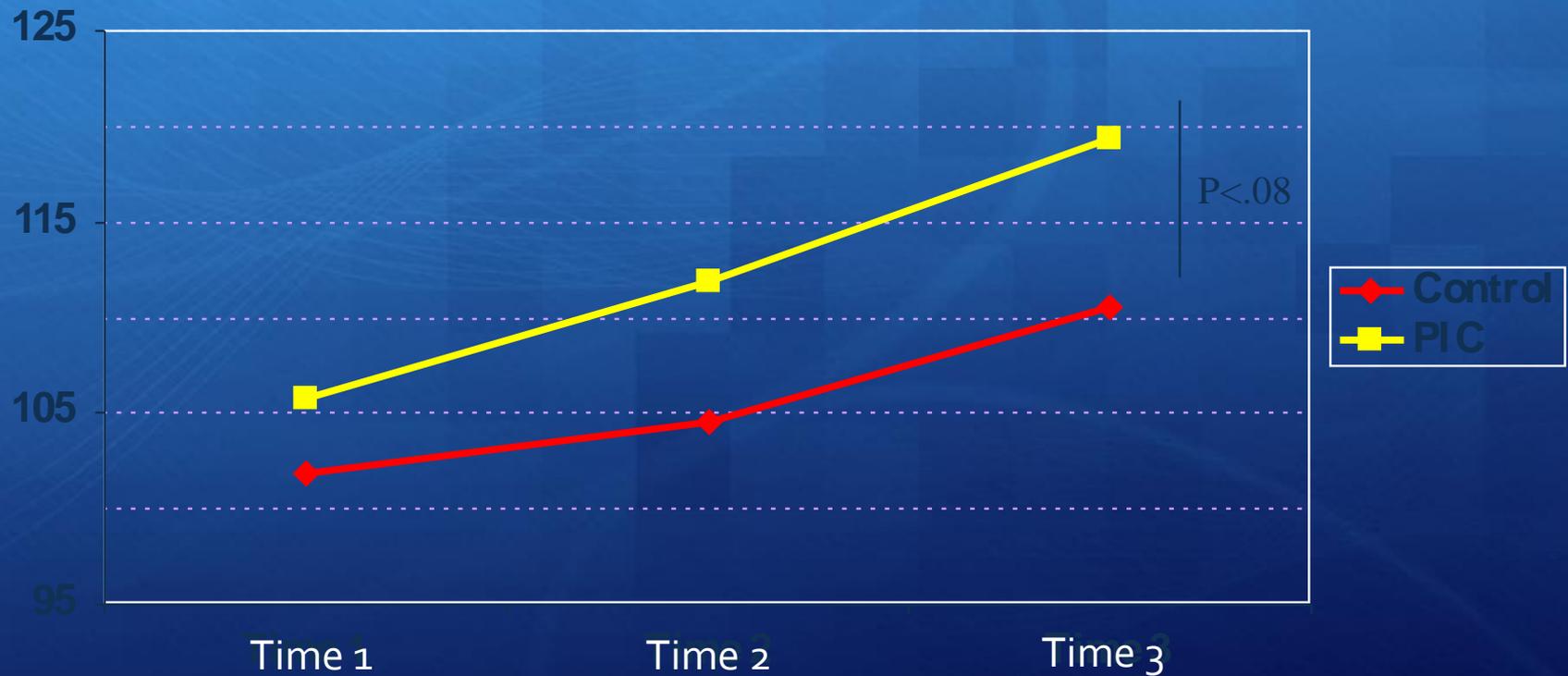
Dyadic Stress Communication

# Dyadic Coping Inventory

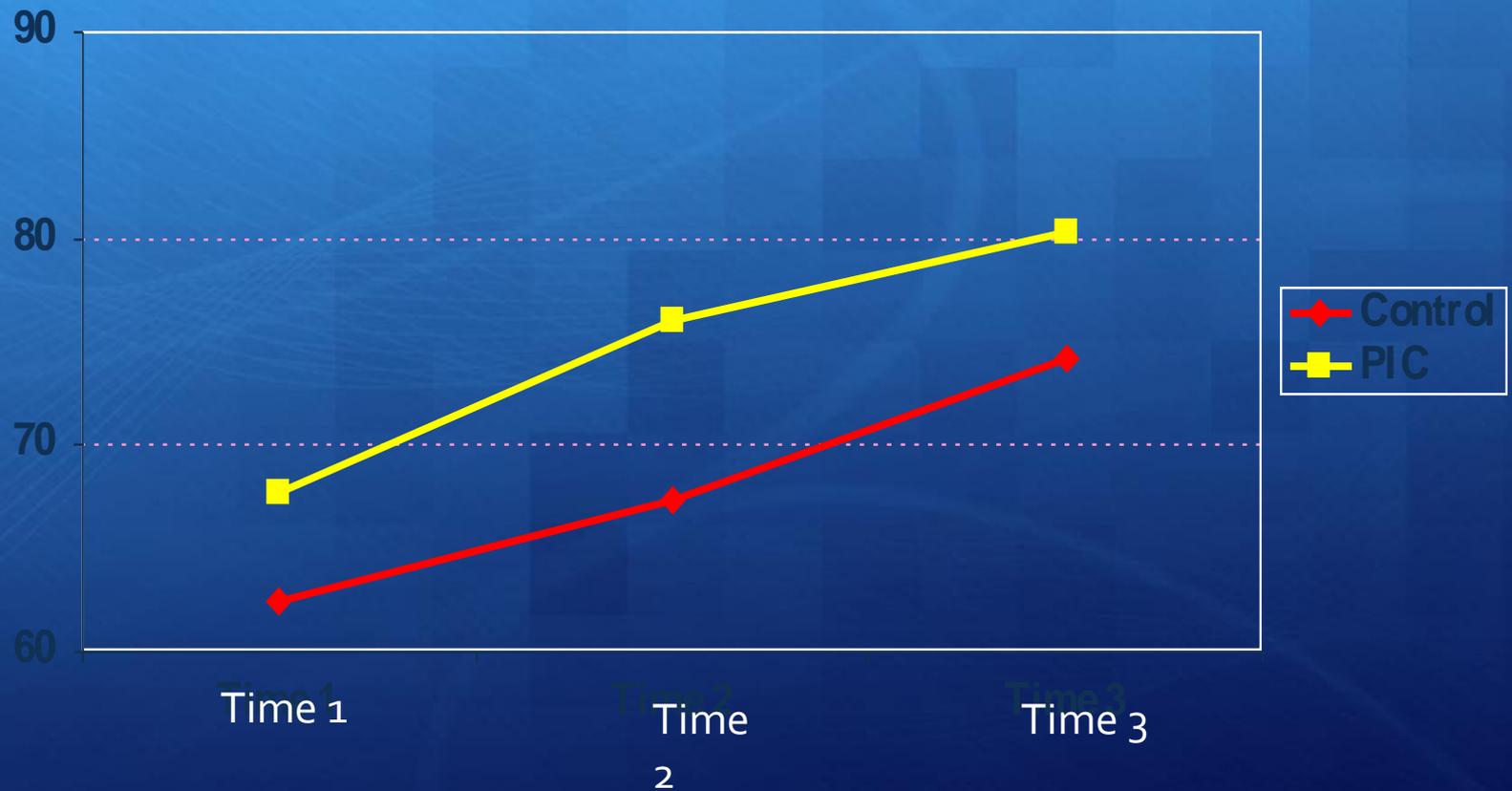
(Bodenmann, 2007)

- + Self-report from 5 Perspectives:
  - + How you communicate your stress to partner
  - + What your partner does when you are feeling stressed
  - + How your partner communicates stress
  - + What you do when your partner makes known his/her stress
  - + What you and your partner do when you are both feeling stress

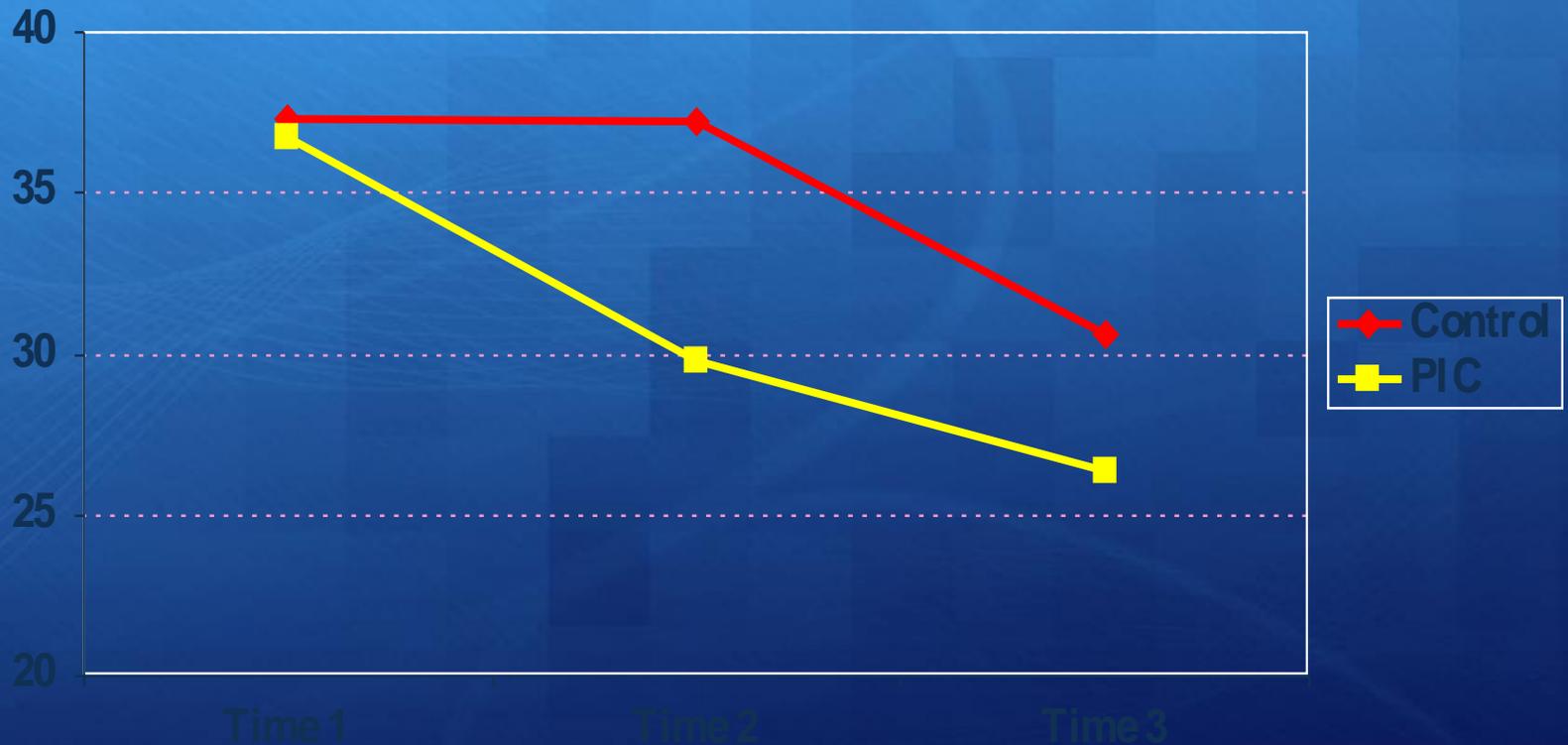
# Graph 1. Comparison of Patients in Two Arms on Well-being at Three Times



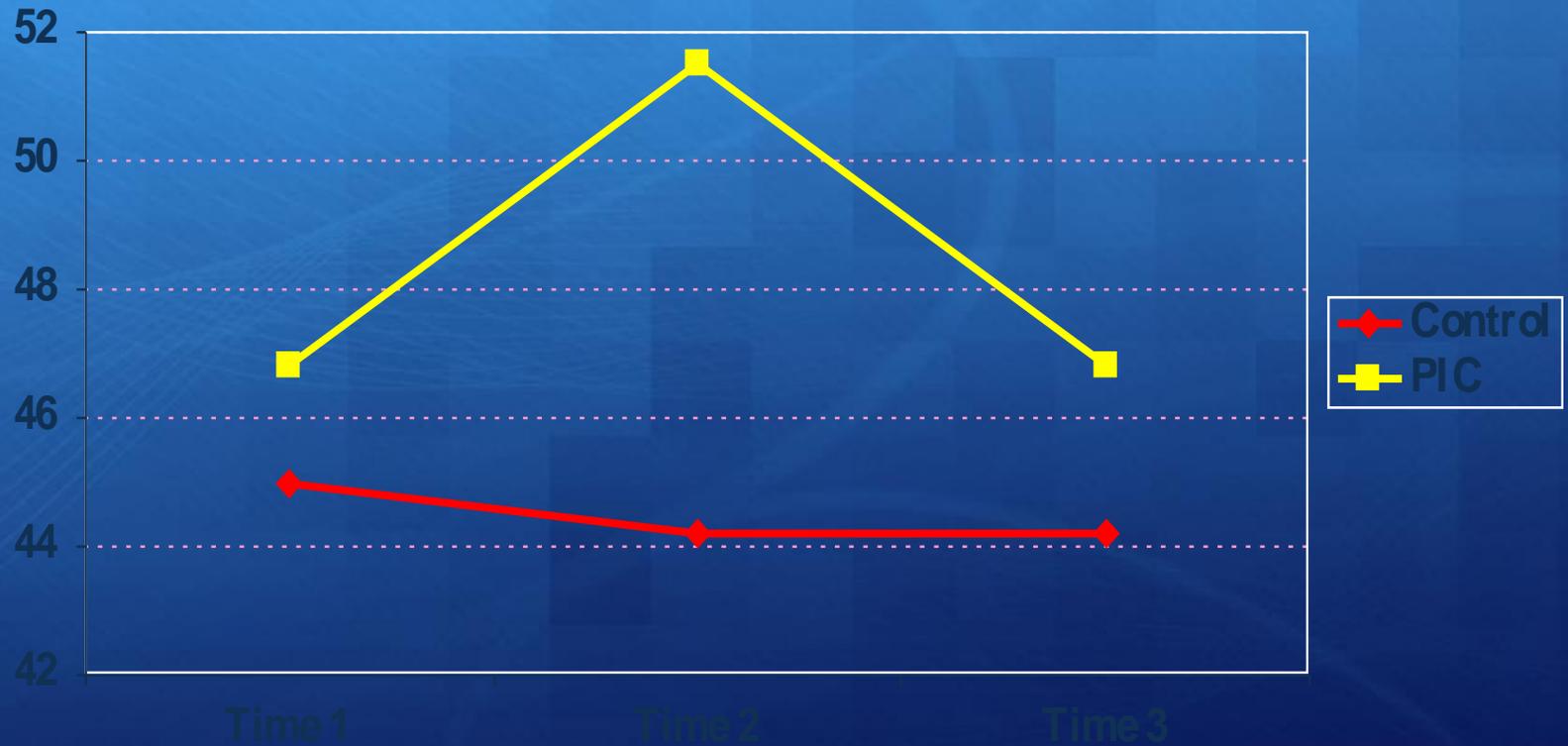
# Graph 2. Comparison of Partners in Two Arms on Emotional Well-being



# Graph 3. Comparison of Partners in Two Groups on Illness Intrusiveness

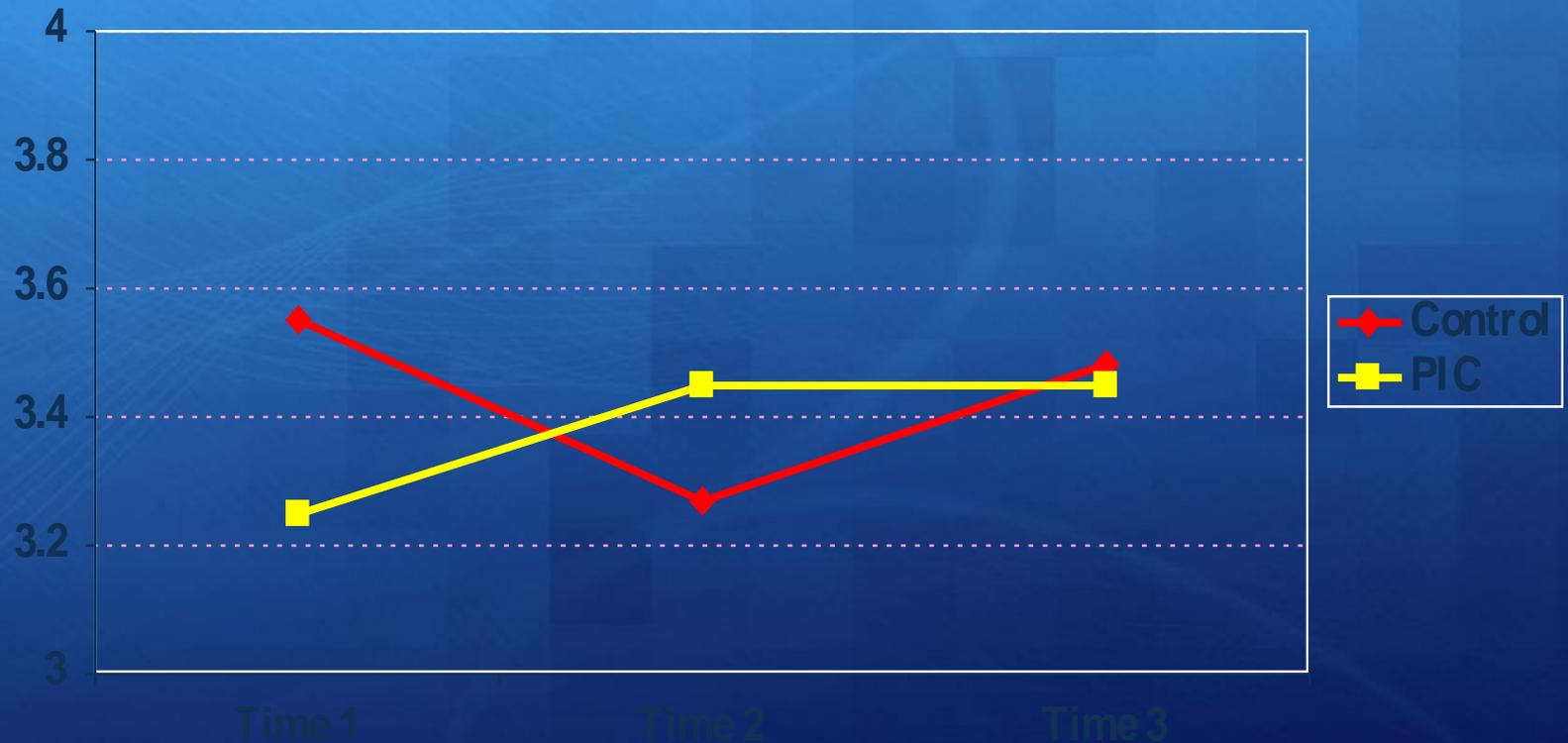


# Graph 4. Comparison of Two Arms on Common Dyadic Coping

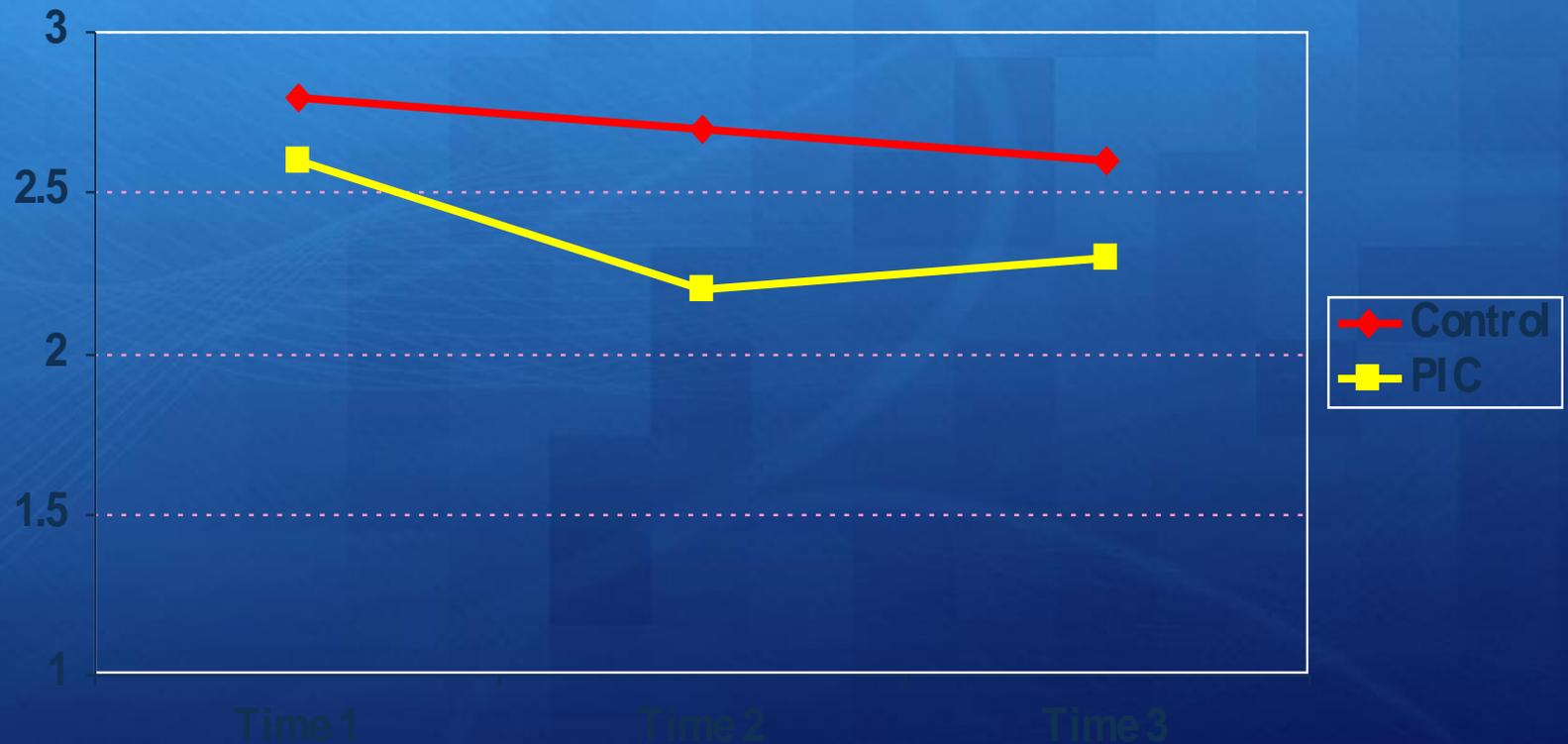


# Graph 5. Comparison of Two Arms on Stress Communication

( $p < .04$ )



# Graph 6. Comparison of Two Arms on Avoidant Coping (perceived by partners, $p < .07$ )



# Phase V: Dissemination

Diffusion and adoption of innovation in other settings

- Methods: Online Training, website, booklets, apps, dvds



# Using Qualitative Analyses with Couples

When would you use a qualitative approach in your study?

Do you interview the partners separately or together?

# Mixed-methods Designs

Three types of designs:

+ Explanatory

+ Exploratory

+ Triangulation

# Developing a Conceptual Model of Dyadic Coping: Analysis of Interviews

## “Listening Guide:” Interpretive Analysis Steps

Step 1: Listening for the Plot

Step 2: “I” Poems and “We” Poems

Step 3: Listening for Themes

Step 4: Composing an Analysis

Step 5: Composing a list of themes for each question

Gilligan, C., Spencer, R., et al. (2003). Chapter “On the Listening Guide,”  
*Qualitative research in psychology*, Washington DC: APA

# Interview Questions for Study on How Couples Describe their Coping

- What is the most important change in your life as a couple since the diagnosis?
- What are you handling best as a couple?
- What are you handling less well as a couple?
- Is there anything good for you as a couple that has come from this diagnosis?

# I Poem (Example)

*I've lost . . . I work . . . I was away . . . I just had to give up . . . I just can't go . . . I just don't have . . . I have been rendered . . . I can't do . . . I can't even do . . . I've lost . . . I've lost . . . I didn't . . . I would have been . . . I probably would have cut . . . I don't think . . . I really don't . . . I don't think . . . I'm reacting . . . I had to build . . . I had to fill up . . . I don't feel as productive . . .*

## We Poem (Example)

*We talk about other things . . . We cannot make decision by ourselves . . . It is not we making the decisions . . . We chose this doctor . . . We did not consider not taking chemo after surgery . . . We did not call a meeting to make decision . . . Since we as couple concern most is the son . . . We have to work . . . We had asked the son many times . . . We arrange for him to come home every long holiday . . . . We put our son the focus . . . . Son does not want 'us' to take him to Hong Kong . . . We cannot make decision ourselves . . . We (Mom and son) now discuss . . . We married and have been living with parents . . . We three of us talking . . . We ask the son to come home . . . We live with other family members. . .*

# Two Patterns of Relational Coping

## Mutual Responsiveness

*Both partners appraise stress as a "we-stress"*

*Approach their coping strategies in coordinated way*

*Partners find meaning and benefit to self and relationship from the stressful event*

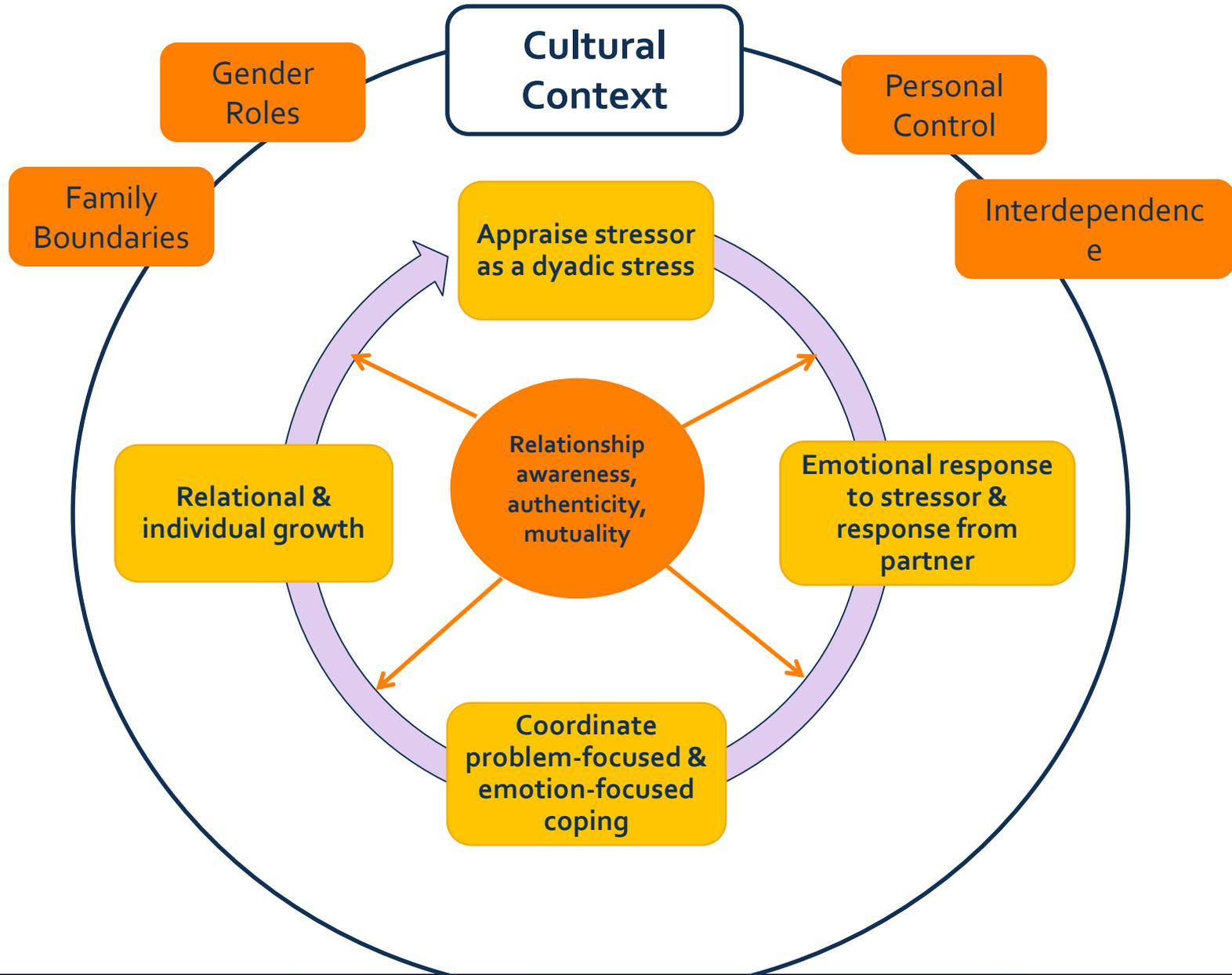
## Disengaged Avoidance

*Partners appraise stress as an "I-stress"*

*At least one partner copes by avoiding or denying the stress*

*Partners cannot find any benefit from the stressful event either for self or the relationship*

# Relational Coping Model



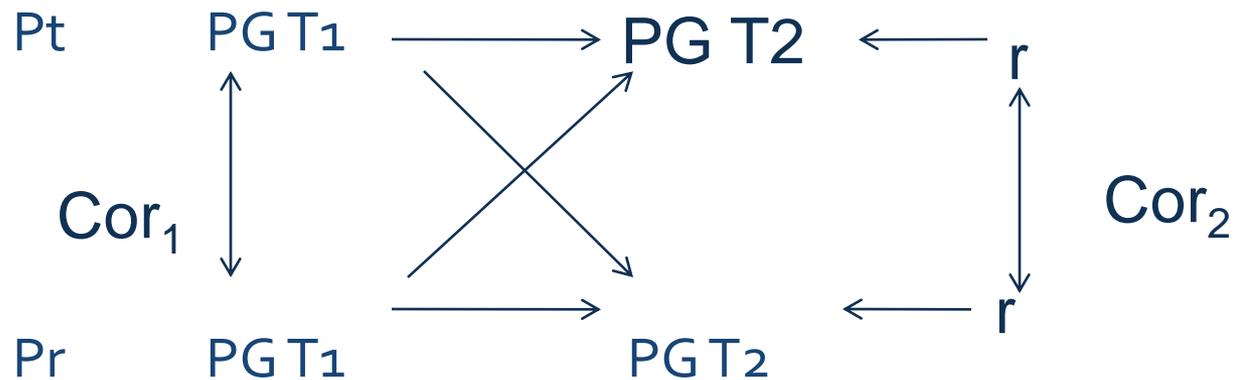
# Conclusions

- + Increased use of dyadic measures
- + Development of dyadic data analysis
- + Need for measures that are the same for both patient and partner
- + Use of Mixed Methods
- + More emphasis on dissemination in intervention research

# Actor-Partner-Interdependence Model

- + Model of dyadic relationships that includes the concept of interdependence with the appropriate statistical techniques for measuring and testing it
- + Non-independence of observations
  - + Observations of two individual are linked or correlated
  - + Knowledge of one person's score provides information about the other person's score

# APIM for Personal Growth (PG) at Two Times



Kuenzler, A., Nussbeck, F., Moser, M., Bodenmann, Kayser, K. (2013). Individual and Dyadic Development of Personal Growth in Couples after Cancer Relative, *Supportive Care in Cancer*, 22, 53-62