



# An Eastern Body-Mind-Spirit Group Intervention Approach to Infertile Women Undergoing IVF

CHAN, Celia H. Y., CHAN, Cecilia L. W.,  
NG, Ernest, H. Y., HO, P. C., CHAN, Timothy H Y.



# Introduction

- Definition of infertility
  - The inability to achieve conception or bring a baby to term after a year or more of regular unprotected sexual intercourse (WHO, 1992)
- Prevalence rate of infertility
  - Approximately 15-17% of couples experience difficulties in conception



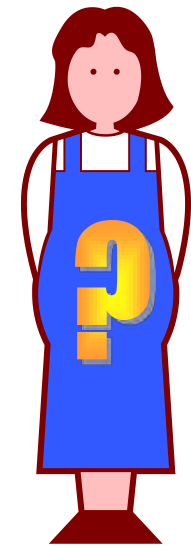
# Introduction

*Infertility is 'a complex life crisis, psychologically threatening and emotionally stressful.'*

(Menning, 1975)

- Infertility

- As a personal failure
  - Women are likely to see infertility as a 'cataclysmic role failure' (Greil et al., 1988)



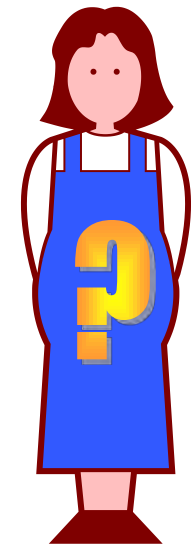
# Introduction

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- Infertility

- As a threat to womanhood
  - Childlessness disqualifies infertile women from being part of the 'in-group of mother' (Miall, 1985)



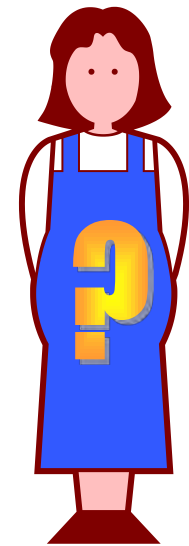
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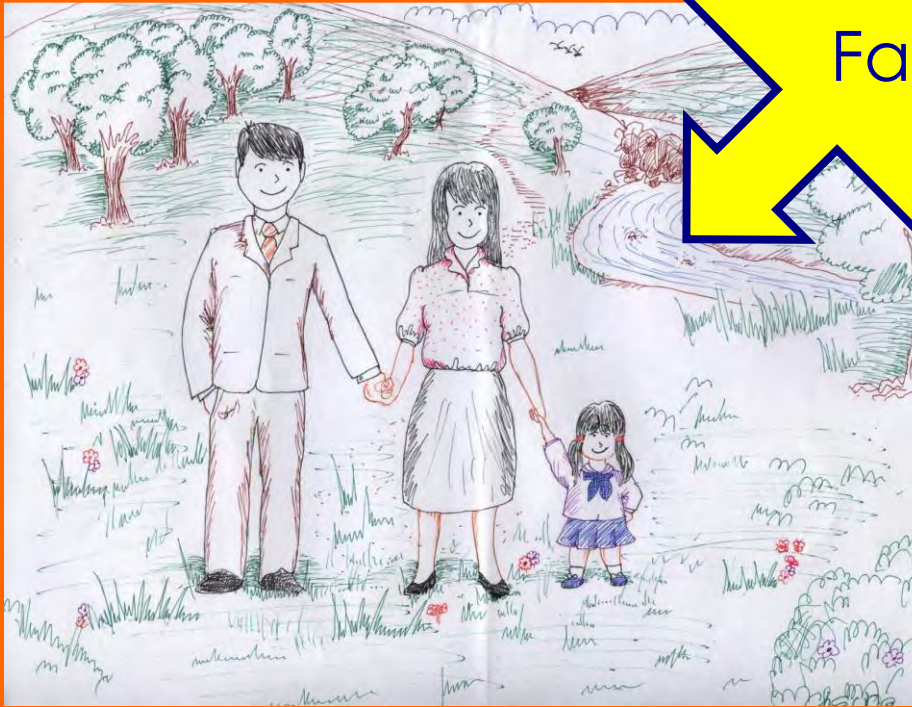
- Infertility

- As a silent loss
  - Loss of control
  - Loss of dream
  - Loss of competence
  - Loss of self-esteem





Complete Family



# Introduction

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(Menning, 1975)

- Infertility

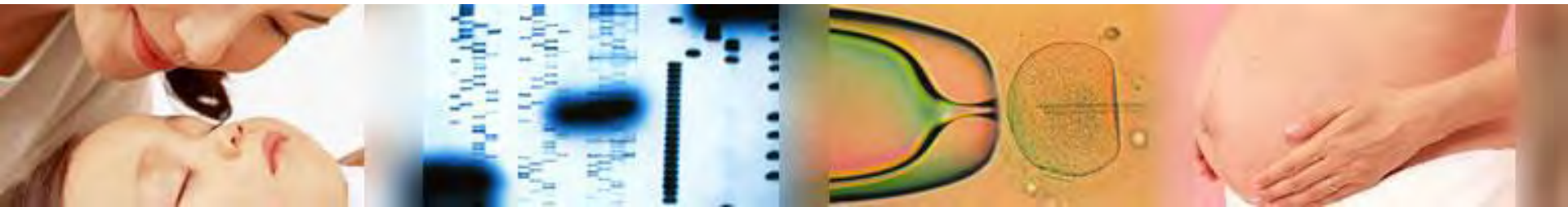
- As a personal failure
- As a threat to womanhood
- As a silent loss

➡➡➡➡ Assisted Reproduction Technologies (ART)



# In Vitro Fertilization (IVF): An emotional demanding treatment

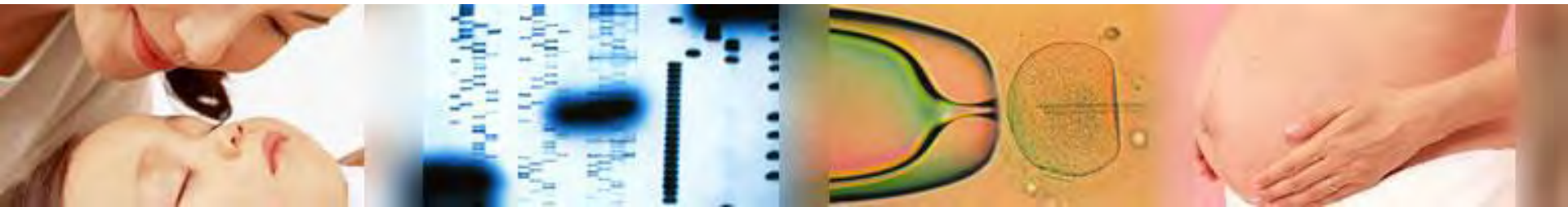
- Women undergoing IVF treatment usually experience much psychological distress
  - Increased levels of anxiety (Slade et al., 1997)
  - Depression (Visser et al., 1994), and
  - Emotional stress (Yong, Martin & Thong, 2000)
  - Loss of self-esteem (Abbey, Andrews, & Halman, 1991)
  - Poorer psychological, sexual and marital adjustment (Wright et al., 1991)





# In Vitro Fertilization (IVF): An emotional demanding treatment

- High level of anxiety
  - Decreased sense of control over the course of treatment and the outcome
  - Unpredictable towards the occurrence, duration and termination of the treatment



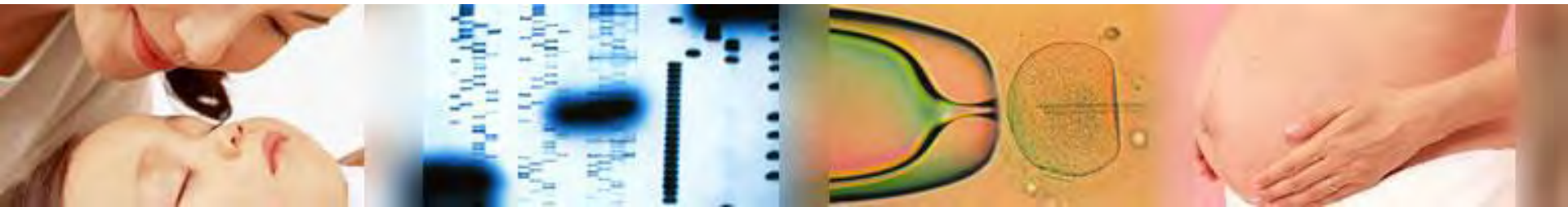
# Preparation Phase

- Content

- Medical investigations
- Counting the period of menstruation
- Arrange a detailed calendar of treatment events
- Buserelin treatment which is taken as a nasal spray every six hours for nearly a month (Four times a day)

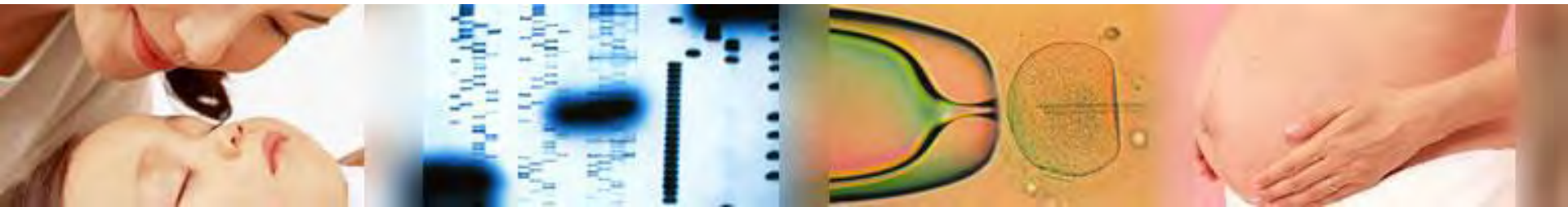
- Psychosocial issues

- Unrealistic expectation towards the treatment outcome
- Anxiety towards the course of treatment due to insufficient knowledge and understanding



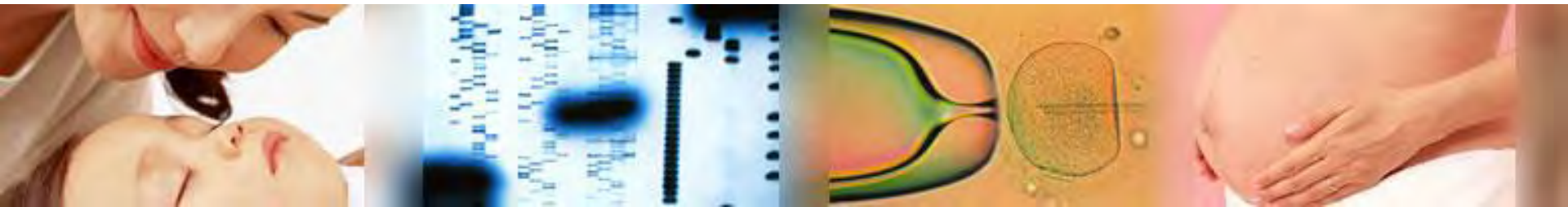
# Treatment Phase

- Content
  - Stimulation with FSH, one injection daily at the clinic in early mornings
  - Ultrasound scan (to check the ovarian response and for possible adjustment of the FSH dose)
  - HCG injection to be given at a particular time late in the evening when the ovarian follicles are ready
  - Egg collection & production of semen sample
  - Embryo transfer if fertilization is successful



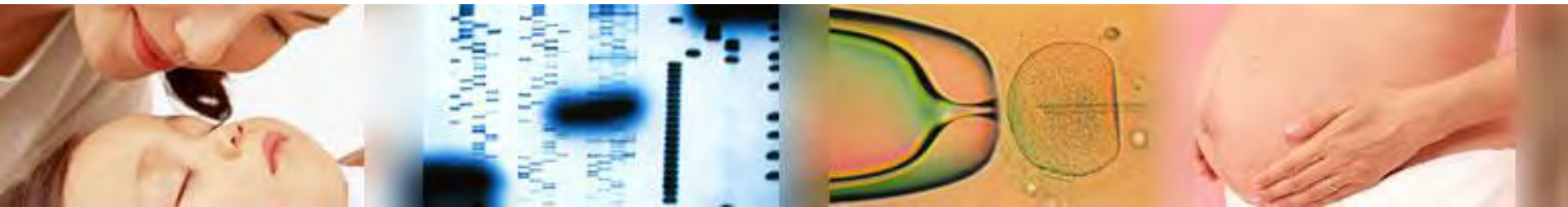
# Treatment Phase

- Psychosocial issues
  - Disruption of day-to-day work schedule and marital sexuality
  - Work pressure: Transportation, workload
  - Social support and pressure: husbands, parents, in-law parents, friends
  - Bodily symptoms in the treatment
  - Concern about the number and size of the ovarian follicles, the quality of sperm from husband and the number of fertilized eggs
  - Anxiety towards the process of egg retrieval and embryo transfer



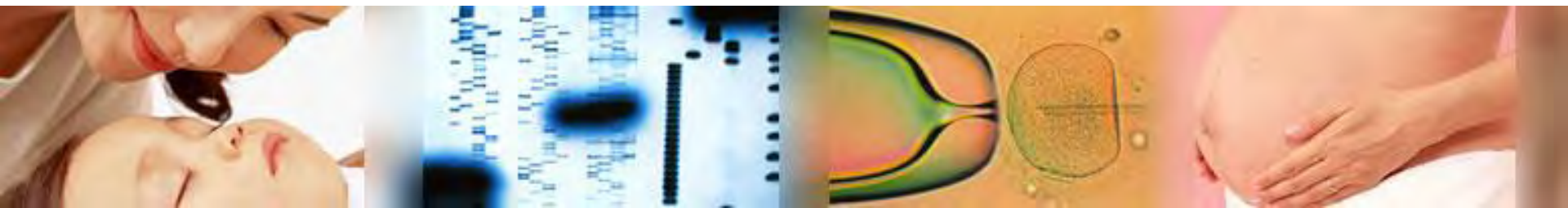
# Post-treatment Phase

- Content
  - Blood test & urine test
- Psychosocial issues
  - Unrealistic expectation towards treatment outcome
  - Anxiety during awaiting for results (whether menstruation occurs)



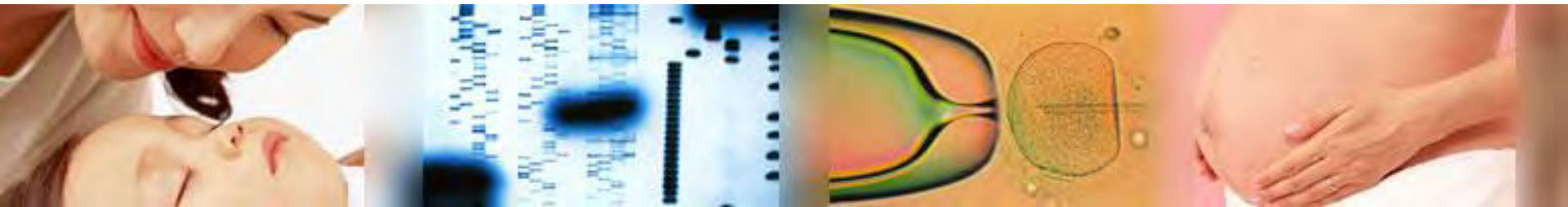
# Group Approach to Intervention

- Has been developed for infertile women or couples in western countries (Domar, Seibel, & Benson, 1990; McNaughton-Cassill et al., 2000).
- Cognitive-behavioral group intervention received lots of attention and has been found to contribute to significant psychological improvement to infertile women (Domar et al., 2000; Domar, Seibel, & Benson, 1990; Domar, Zuttermeister, Seibel, & Benson, 1992; Domar, Zuttermeister, & Friedman, 1999).



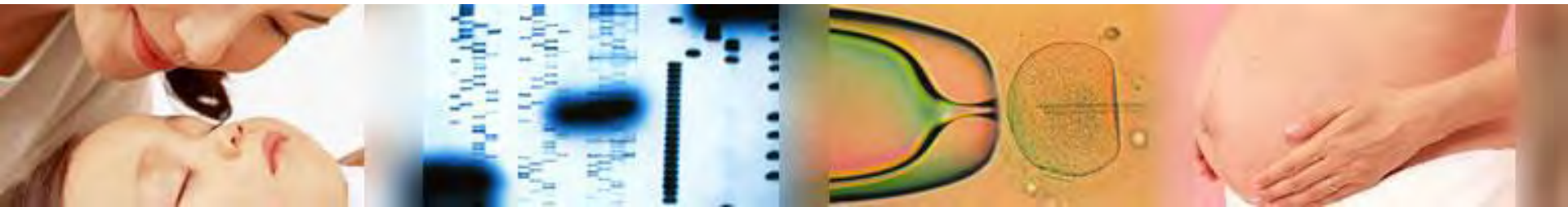
# Domar's Group Approach to Intervention

- Cognitive-behavioral Approach
  - Body-mind connection
  - Peer support
  - Was proved that psychological distresses such as anxiety and depression could be alleviated while positive resources of belongingness, knowledge, and strength could be enhanced



# Eastern Body-Mind-Spirit Intervention group approach

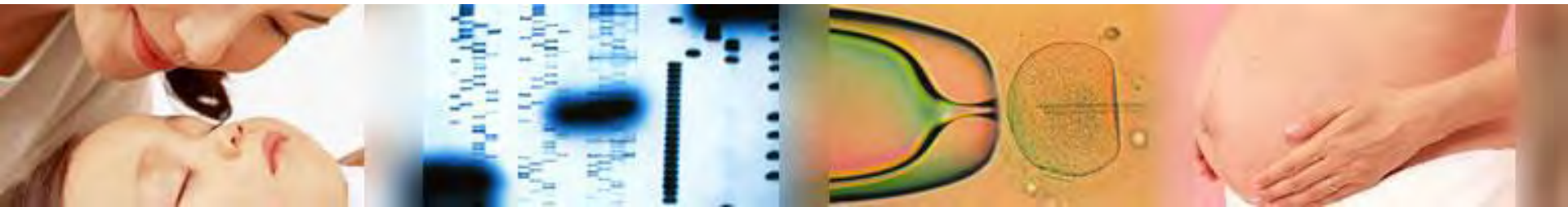
- Has been widely used for women who are under stressful life experiences or situations such as divorce, breast and gynecological cancer, menopause and so on (Chan, Chan & Lou, 2002; Chan, Leung & Ho, 1999)
- Not yet been examined in the infertile community





# Purpose of the Current Study

- To determine if the Eastern Body-Mind-Spirit Intervention group approach could alleviate the anxiety of the infertile women awaiting for in vitro fertilization (IVF)



# Methods

- Participants

- Women (age below 40) due to undergo their **first** IVF cycle at the Assisted Reproduction Unit of Queen Mary Hospital
- Recruited during an psycho-educational talk for couples 3 months prior to their first-time treatment
- Randomly assigned into two groups: intervention group and control group (received no intervention)



# Methods

- Participants (n=227)
  - Mean age: 34.4

	Intervention group	Control group
No. of subjects recruited	101	126
Attrition rates	31%	8%
Subjects completed the study	70	116



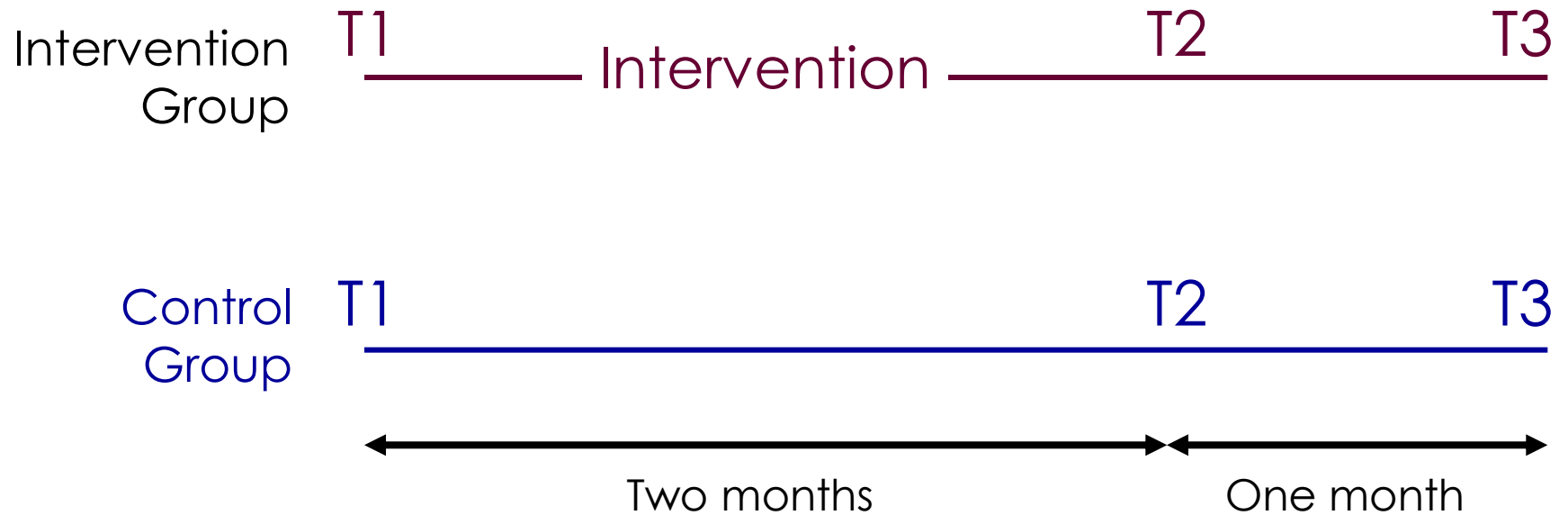
# Methods

- Fourteen groups were run
- Procedures
  - Baseline measurement
    - T1: 3 months prior to the scheduled treatment
  - Follow-up measurement
    - T2: First day the couples arrived at the IVF clinic for daily injection of ovarian stimulant
    - T3: The day they were admitted to clinic for embryo transfer, which was about two weeks after their first daily injection



# Methods

- Procedures





# Intervention Model

Eastern Body-Mind-Spirit Intervention Group Approach

Spirit

- Reflection on meaning of life, children and family
- Forgiveness & letting go
- Personal mission
- Appreciation of life and others

- Resolution of negative emotions
- Demystification of IVF success
- Effective Communication techniques
- Meditation

Mind

- Awareness of bodily symptoms
- Breathing techniques
- Muscle relaxation
- Acupressure
- Massage
- Pain management

Body

# *Working with Body*

## *'Body' as an entry point for infertile women*

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- Information support
    - Q & A with nurse
  - Stress Management Techniques
    - Breathing techniques
    - Muscle relaxation techniques
    - Acupressure
    - Meditation
- Tailor-made for them during daily injection in the clinic and embryo transfer

# Working with Mind

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- Normalization of the personal experience
  - Issues of taboo and secrecy
  - Resolution of negative emotions
- Insights on the situation such as physical and psychological responses, marital relationship and communication and meaning of life
- Mutual learning on effective stress coping strategies
- Social support and encouragement in the group throughout the course of treatment



# Working with Spirit

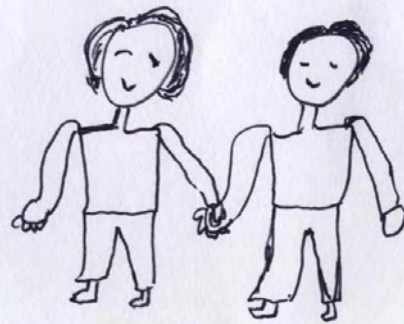
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- Psychological preparation towards the results by reconstructing the meaning of children, family and life was done during the group.



More elements have been added to the meaning of a perfect family

幸福的家



# Working with Spirit

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- 'Detachment' from their 'psychological attachments
- Forgiveness towards personal constraints
- Appreciation of life and others
- Re-orientation of life goal and widen the scope of choices
  - IVF → If success → ?
  - IVF → If failed → ?
- Personal Mission Statement

# Methods

- Apparatus

- Chinese State-Trait Anxiety Inventory (C-STAI; Tsoi, Ho & Mak, 1986)
- Consists of two subscales – State Anxiety (SA) and Trait Anxiety (TA), each comprised of 20 Likert-type items
  - The State Anxiety scale measures the transitory anxiety level
  - The Trait Anxiety scale reflects a relatively stable disposition to be anxious.
- Cronbach's alpha values were satisfactory in the current study (SA:  $\alpha = .92$ ; TA:  $\alpha = .86$ )



# Data Analysis

- To investigate treatment effect, repeated-measure ANOVA was employed

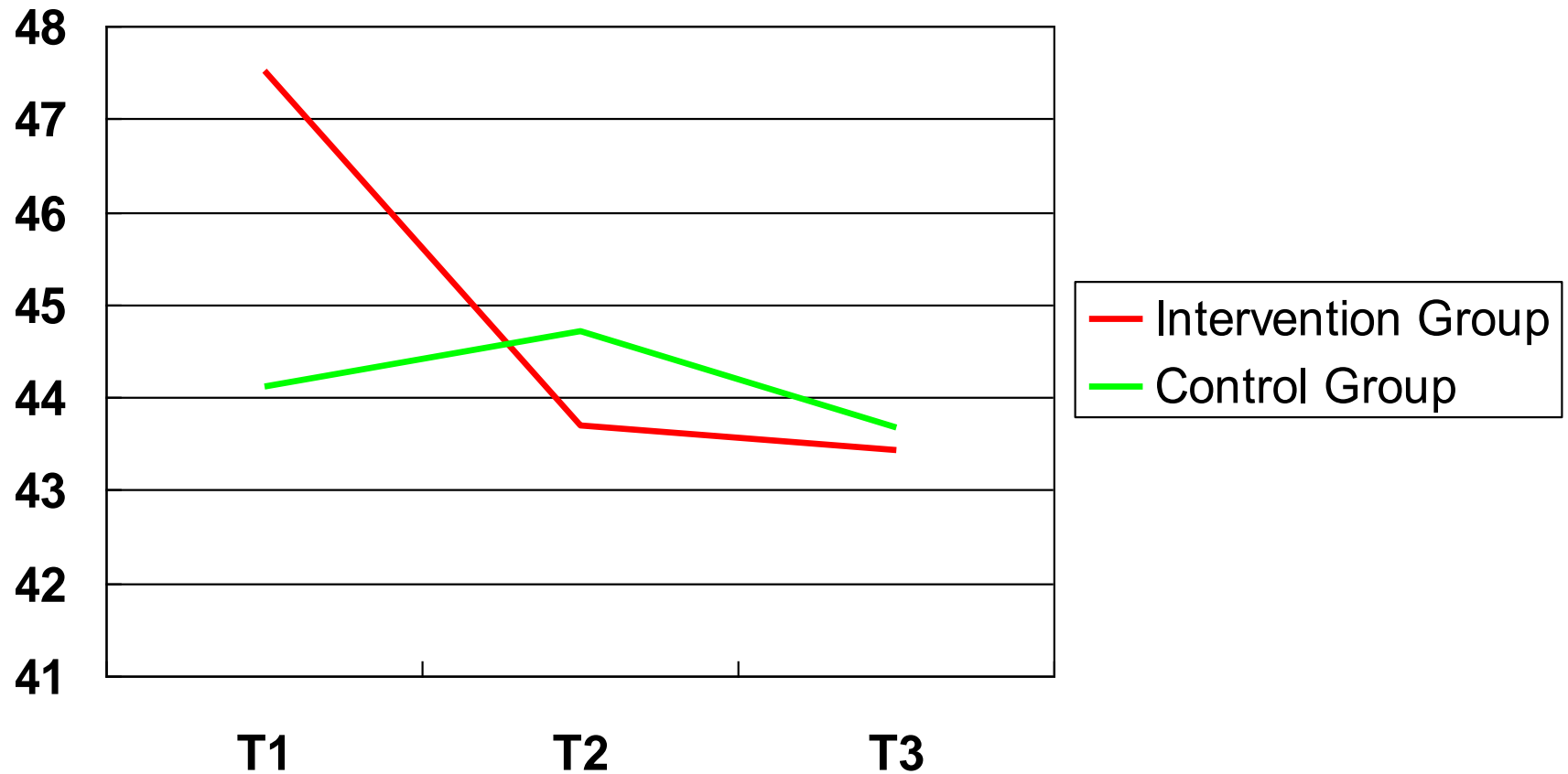


# Results

- No significant difference in State Anxiety scores between control and intervention groups, after controlling the effect of their Trait Anxiety as a covariate. [ $F(1,163) = 0.750, p = .39$ ]
- Group effect was significant. [ $F(1.91, 297.22) = 3.432, p < 0.05$ , degree of freedom adjusted for violation of equal variance assumption]
  - The intervention group had a significantly lower State Anxiety mean score than the control group, indicating that the intervention worked to lower the transitory anxiety level of women in preparation of their IVF treatment.



# Comparison of the State Anxiety Score







# Discussion

- Results showed a significant reduction in State Anxiety scores on the treatment group after the psychosocial intervention
  - The BMS intervention is effective in lowering the participants' situational anxiety towards the treatment right after the intervention, which also maintained in a lower level throughout IVF.



# Discussion

- Consistent with previous research, which supported the view that intervention group could help in alleviating women's anxiety as positive resources of belongingness, knowledge, and strength was enhanced.



# Discussion

- *1. Decreased feeling of subjective, consciously perceived feelings of apprehension and tension towards IVF*
- Reduction of situational anxiety
  - Increase of predictability:
    - Clarification of the treatment procedure
    - Detailed daily arrangement
    - Realistic expectation towards the results



# Discussion

- Reduction of situational anxiety
  - Increase of control:
    - Increased self-efficacy through exercising control over the treatment: Developed sufficient knowledge and skills to interact with the environment
    - Letting go of primary control (changing the environment) and regaining of secondary control (accommodation to external reality)



# Discussion

- *2.No change in the motive or acquired behavioural disposition that predisposes the women to perceive a wide range of objectively non-dangerous circumstances as threatening*
- No significant difference was found on the Trait Anxiety on both intervention and control group members
  - The BMS intervention was not effective in lowering the participants' long-term and general tendency towards anxiety



# Further Investigations

- The relationship between BMS approach and the personality trait (such as Trait Anxiety)
- Marital communication and support throughout the course of treatment are crucial to enhance the psychosocial well-being of the wives.
  - Husbands' involvement in the intervention group is suggested





Thank you!

