

# Lifestyle and infertility

Insights of a nurse

Annie Bolster, nurse practitioner



Lifestyle and infertility,  
How can we help effectively?  
Can we improve compliance?

Report of a lifestyle program for  
infertile obese women

# Introduction

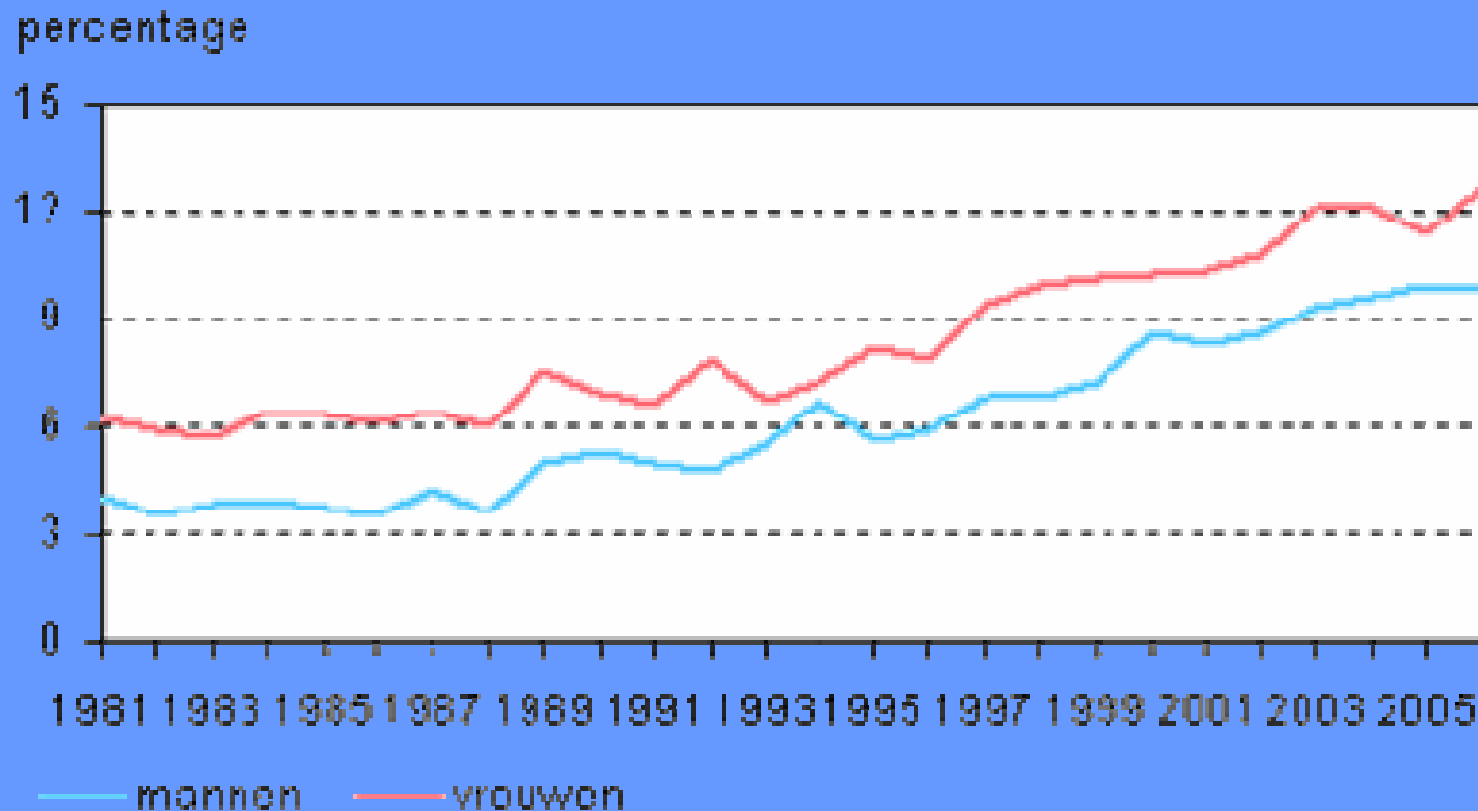
Lifestyle intervention: the program  
Women of Weight and Infertility!

Compliance and Concordance

Conclusion and Challenge



# Prevalence of Obesity



Haslam DH et al., Lancet 2005; 366: 1197



# Obesity and infertility

- Menstrual disturbances
- Delayed time to conception
- Poor response to ovulation induction
- Decreased pregnancy rates after ART
- Increased miscarriage rate
- Lower life birth rates



# Literature weight loss and infertility

Weight loss in obese infertile women results in improvement in reproductive outcome for all forms of fertility treatment.

- Clark, A.M.(1998). Hum. Reprod. 13, 1502-1505
- Norman, R.J. (2004). Hum.Rep. 10, 267-280



umcg

# Project Lifestyle intervention

## Health education

- Insight
- Tools
- Enhance intrinsic motivation, responsibility

## Special treatment

Psychologist





# Role nurse practitioner

- Inclusion, counseling and contracting patients
- Implementation of the lifestyle program
- Offering individual guidance
- Cooperates in research program on obesity and infertility
- Coordinates the activities of the patients



umcg

# Lifestyle intervention

Patient centred care

Interventions aimed at:

- Eating pattern
- Increasing physical activity
- Behavioural change

**NHLBI Obesity education Initiative, Expert Panel (1998).**

**Identification, Evaluation and Treatment of overweight and Obesity in Adults:**

**the evidence Report. NIH pub. No 98- 4083. Evidence Cat. A**



# Lifestyle intervention: the program

Interventions aimed at:

- Eating pattern
- Increasing physical activity
- Behavioural change



umcg

# Diet

- Healthy eating pattern
- Low calories: 1200 Kcal per day
- Patients learn to handle calorie tables





# Lifestyle intervention: the program

Interventions aimed at:

- Eating pattern
- Increasing physical activity
- Behavioural change



# Physical activity

- 10.000 steps per day (step counter)
- 3 x per week moderate intensive activity in an increasing schedule

**Kempker, H.C.H. Consensus over de Nederlandse Norm voor gezond bewegen, TSG 2000, 180-183**





# Lifestyle intervention: the program

Interventions aimed at:

- Eating pattern
- Increasing physical activity
- Behavioural change



# Behavioural change

Counseling to promote partnership  
and improve self-efficacy

Make patients aware of the problem and  
equipe them with tools to take own  
responsibility for good health





umcg

# Consultation lifestyle program

Clarify motivation

Stimulate motivation

Enable change

- Help setting realistic goals
- specific goals prevent vague goals
- Self efficacy; regular control
  - Calory counter
  - Use pedometer
  - Weight control (self and counseler)
- Make realistic and specific agreements

# Result: tailored care



umcg

to increase intrinsic motivation and responsibility for a healthy lifestyle

- Individual dietary advice
- Personal activity plan
- Personal guidance and support:  
concordance and motivational counseling





# Results WOW!

60 patients	Completed program (38= 54%) (max 12 month)	Drop-out (22= 36%)	Mann-Whitney test
Weight loss Mean 4.2 ±5.8	6.1 ±6.4	1.3 ± 2.9	P<0.002
Spontaneous pregnancies	19 (56%) •15 anovulatory (35%) •4 ovulatory (24%)	3 (14%)	P<0.002



# Drop out

Patients	22	Reason	%
Personnel	8	No motivation (8)	36%
Social/environment	9	Personnel circumstances (6) Distance (3)	40%
Intervention	5	Bariatric surgery (3) Own diet (1) No help necessary (1)	22%



# Compliance and Concordance

Is compliance easy?

Can we reduce drop outs by better  
interventions to enhance compliance?



umcg

# Recent Cochrane analysis

- Most “compliance enhancing” interventions have no effect on compliance, and even less on health results
- Even the most effective interventions have modest effect.
- Effective interventions are very complex and therefore hard to interpret
- Short term results are easier to get, than long term results

**1<sup>e</sup> nationale therapietrouw conferentie 2007**

**Haynes et al.**

**Interventions for enhancing medication adherence**

**Systematic Review Cochrane 2008**



# Conclusion Conference Compliance

- No clearly defined intervention for better compliance
- Need for simple multidisciplinary approaches
- Absolute necessity to involve patients
- Compliance not only a patient's problem, but also a medical problem
- Important role for communication to enhance compliance
- More research is needed

**1<sup>e</sup> nationale therapietrouw conferentie 2007**

**Van der Meulen N.**

**Interventions to improve recall of medical information in cancer patients: a systematic review of the literatur**



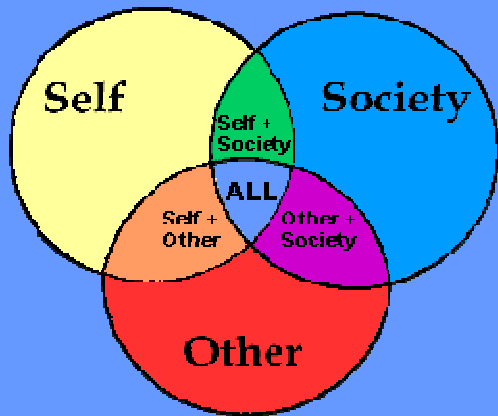
Partner

Change behaviour



As simple as possible  
Tailored

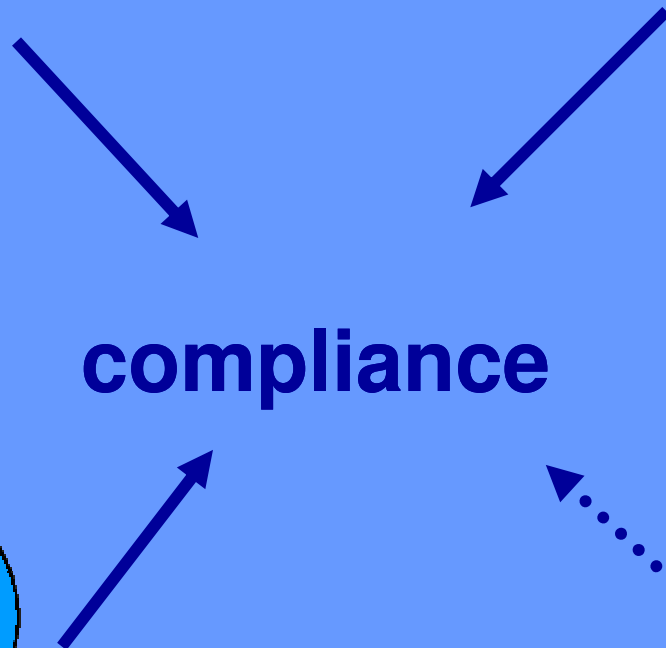
**compliance**



Involve environment



Multidisciplinary







# Concordance

Proces of mutual decisionmaking,  
in which the patient is accepted as a partner  
with his own expertise and beliefs

- The consultation can be non-concordant
- Non compliant: does not follow the instructions

**2<sup>e</sup> nationale therapietrouw conferentie 2008**  
**H. de gier, presentatie Concordancemodel**

# From compliance to concordance

## Compliance

**Prescriber decides on:  
diagnosis and treatment**

**Prescriber's task:  
explain and instruct**

**Patient's task is to comprehend**

**Successful outcome is  
compliance**

## Concordance

**Prescriber and patient negotiate  
diagnosis and treatment**

**Prescriber explains, clarify,  
persuades and accommodates**

**Patient explains, considers  
and accommodates**

**Successful outcome is a  
negotiated agreement**

Medicine partnership



# Why concordance?

- Relation between the effort of the prescriber and outcome for patient:
  - Improvement of patient centered orientation during consultation (more empathy, more support, better chance that patient's problems are discussed)
  - Patient's satisfaction increases which leads to increased adherence and health.

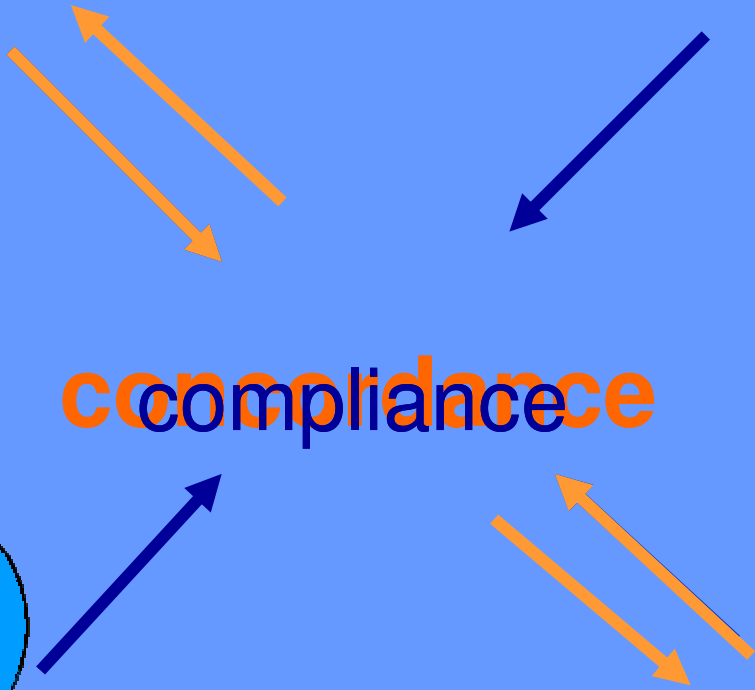
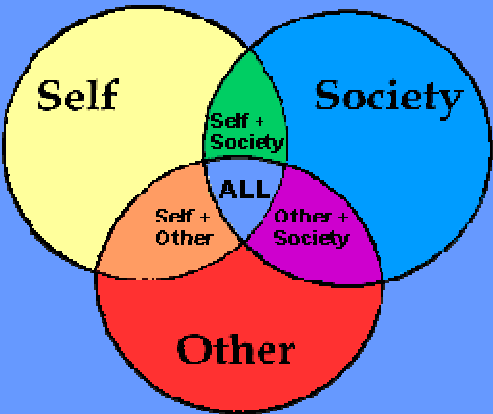
**Lewin SA.**

**Interventions for providers to promote a patient-centred approach in clinical consultations (cochrane review)**

Change behaviour



compliance





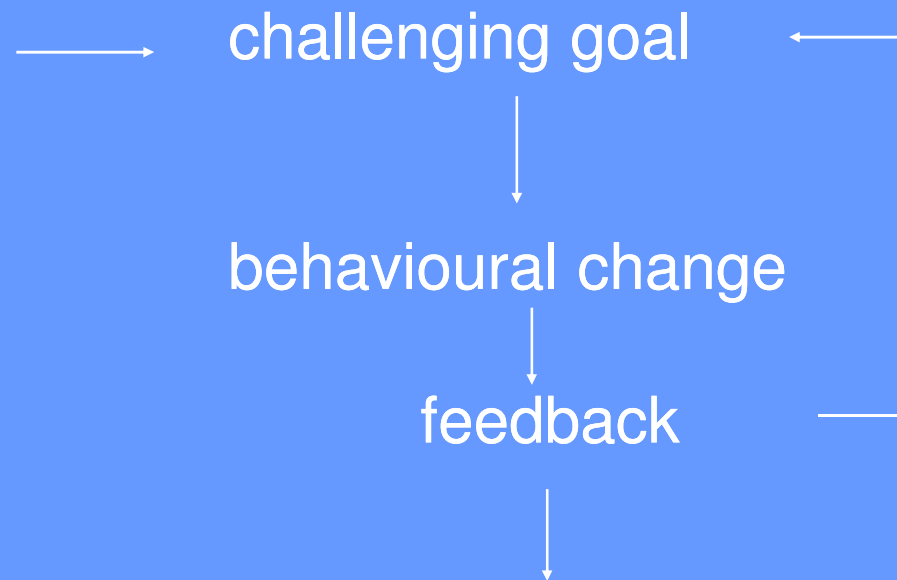
# Partnership is pivotal for concordance

Motivational counseling is a tool to  
accomplish concordance and  
to realise tailored interventions



# Motivational Counseling

Motivation



social pressure  
relapse





umcg

# Principles motivational counseling

## Four core counseling principles

- Express empathy
- Develop a discrepancy
- “Roll with resistance”
- Support “Self-efficacy”

### **Motivational interviewing**

**An evidence-based approach to counseling helps patients follow treatment recommendations**

**Eric Levensky**



# Skills for motivational counseling

- Reflective listening
- Asking open questions
- Directly affirming and supporting the patient
- Make summary statements

## **Motivational interviewing**

**An evidence-based approach to counseling helps patients follow treatment recommendations**

**Eric Levensky**





# Conclusion

## Can we help effectively?

- The lifestyle program helps patients to lose weight and increases their chances on pregnancy
- Motivational counseling is an important part of the program, in which the patient is accepted as a partner
- Motivational counseling is an effective tool to achieve concordance

## Can we improve compliance?

- Concordance improves mutual understanding and cooperation and therefore can contribute to better compliance

# LIFE*style*

Costs and effects of a structured lifestyle program in subfertile couples with overweight or obesity: prevention of unnecessary treatment and improvement of reproductive outcome

ZonMW Preventie deelprogramma 2  
Effectiviteits- en doelmatigheidsonderzoek  
Start voorbereidingen maart 2009

# LIFEstyle

- In view of this lack of evidence and strong practice variation we will conduct a randomized clinical trial, in which we compare the costs and effects of a six months structured lifestyle program, aimed at weight loss, to "usual care"
- The intervention aims to prevent:
  - 1. Unnecessary fertility treatment and complications associated with fertility treatment
  - 2. Obesity-related pregnancy complications, thus improving pregnancy chances and perinatal outcome