The effectiveness of exercise as treatment for vasomotor menopausal symptoms: randomised controlled trial

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BJOG in press
Menopause

• Up to 70% of women experience hot flushes/night sweats (average 1-3 yrs)

• Cessation of menstrual periods – “the change”

• Estrogen levels decrease, causing the ovaries to stop producing an egg each month

• Reduction in estrogen causes symptoms, including:
  – hot flushes
  – night sweats
  – poor sleep
  – mood swings
  – vaginal dryness
  – depression/anxiety
Symptoms of menopause

THE SEVEN DWARVES OF MENOPAUSE
Itchy, Bitchy, Sweaty, Sleepy, Bloated, Forgetful, & Psycho

I'M STILL HOT, IT JUST COMES IN FLASHES NOW

I have no idea who originally created this image, but if you know, I'll gladly give credit where credit is due.
Treatments

• HRT effective
  – but women don't want it & doctors don't want to prescribe it

• What are the alternatives? Exercise?

• Other reasons we want women to exercise around menopause?
  – reduce cardiovascular risk
  – reduce osteoporosis risk
  – reduce cancer risk
  – weight management

• RCOG recommend exercise as treatment for hot flushes/night sweats
  – but Cochrane review(s) showed no evidence of effect.................
Is exercise effective?

- 3 group RCT of effectiveness – Active Women Study
  - nested qualitative study
Pilot work & intervention development

- Cochrane review (2 updates & still no evidence of effectiveness....)
- Observational studies — what are menopausal women using/doing?
- Observational study of women’s exercise preferences — what kind of exercise intervention would you like?
Mechanisms

• Reduction in body weight – fat is extra insulation
  – Studies reported heavier women have more flushes/night sweats
  – but heavier women have more estrogen.....

• Exercise produces endorphins that stabilises the thermoregulation system
Methods

• 261 perimenopausal or post menopausal women having at least 5 HF/NS per/d
• Aged 48-57 years, not using HRT & sedentary

• 23 practices sent invitation letters (response 18%, n=9409/1713)

• Randomised (n=87 per gp) for 6 months to
  – one of two exercise interventions or
  – control

• Follow up at 6 and 12 months
• Primary outcome – frequency of hot flushes/night sweats at 6 months FU
• Secondary outcomes – QoL, psychological health, sleep, somatic symptoms, physical activity etc
Exercise interventions

goal: progress towards 30 min of moderate intensity exercise 5/t/pw

Exercise DVD group

• 2 one-to-one exercise consultations
• Pedometer
• DVD (case stories)
• Information booklet
• Mailed study leaflets/prompts (various topics)

Exercise social support group

• 2 one-to-one exercise consultations
• Pedometer
• 3 exercise social support groups in the community (90 mins on various topics each month)
Results

• Baseline characteristics balanced across groups
  – average 9 HF/NS per day, 70% overweight/obese, 10% non-white, 55% deprived

• Follow up: 6 months 83.4%, 12 months 85.1%

• No significant differences between the either exercise gp & control for HF/NS per week
  – exercise DVD versus control (-8.9, 95% CI -20.0 to 2.2)
  – exercise social support versus control (-5.2 95% CI -16.7 to 6.3)

• Compared to controls, exercise social support group had significantly
  – lower somatic symptoms (6 & 12 mths)
  – better sleep (6 mths)
  – lower anxiety scores (12 mths)

• Exercise social support gp doing more vigorous exercise than controls at 6 months
Summary

• Exercise is not an effective treatment for HF/NS
  – can alleviate other symptoms associated with menopause

• Findings consistent with systematic reviews

• RCOG must revise their guidance to patients
Thanks for listening