

BACKGROUND

Infertility affects ~1 in 7 couples with many and varied causes that include lifestyle factors. Lifestyle changes are cost effective, non-invasive options for routine fertility care. Information on habitual activity is not enquired from women and no consensus regarding optimum exercise exists for fertility patients.



AIMS

- Determine exercise habits of women attending the one stop infertility (OSI) clinic
- Assess enthusiasm to participate in further research examining exercise and fertility.

METHODS

250 women were recruited from a tertiary OSI clinic over a period of 9 months. All participants completed a voluntary, self-reported, anonymous questionnaire, demographics were collected, and exercise habits captured utilising the International Physical Activity Questionnaire (IPAQ).

RESULTS

Most women (64.4%) recorded no diagnosed cause for infertility, the most common causes documented included; PCOS (15.2%), male factor (9.2%), endometriosis (3.6%) and premature ovarian failure (POF) (2.8%). 72% had no past medical history of note, most frequent medical co-morbidities were asthma (9.2%), depression (5.2%), migraines (3.2%), hypothyroid (2.8%), and hypertension (2%). 70.4% were not on any prescribed regular medications, while the remainder most commonly used antidepressants (8%) and inhalers (6.4%).

Acceptability

31.2% wanted to be involved in future research relating to exercise and fertility, out of them, 38.4% were happy for a 1-month delay to their fertility treatment, 11% were happy for 3-month delay, 8.2% were happy for 6-month delay and 16.4% were happy for 12-month delay ((26%) unsure regarding time delay)).

RESULTS

Variable	Demographics (n=250)
Age (years) [mean ± SD]	34 ± 5
BMI* (kg/m ²) [mean ± SD]	29 ± 7
Underweight (< 18.5 kg/m ²) [%]	1
Normal weight (> 18.5, ≤ 24.9 kg/m ²) [%]	37
Overweight (≥ 25, ≤ 29.9 kg/m ²) [%]	24
Obese Class 1 (≥ 30, ≤ 34.9 kg/m ²) [%]	21
Obese Class 2 (≥ 35, ≤ 39.9 kg/m ²) [%]	9
Obese Class 3 (≥ 40 kg/m ²) [%]	8
Smokers [%]	10
Alcohol drinkers [%]	59
Regular periods [%]	76
Number of pregnancies [mean ± SD]	1 ± 1
Number of children [mean ± SD]	0 ± 1
Time trying to conceive (months) [mean ± SD]	32 ± 24
Previous Fertility treatment	
None [%]	92
IVF [%]	3
Clomid [%]	4
IUI [%]	1

Variable	Participants (n=229)
Physical activity level	
High [%]	25
Moderate [%]	46
Low [%]	29
Total Physical Activity (min/week) [means ± SD]	87 ± 64
Total Physical Activity (MET-min/week) [means ± SD]	1607 ± 1513
High Activity (MET-min/week) [means ± SD]	427 ± 669
Moderate Activity (MET-min/week) [means ± SD]	278 ± 535
Walking Activity (MET-min/week) [means ± SD]	902 ± 961

MET (metabolic equivalent)

Analysis of total IPAQ MET-minutes per week revealed no significant correlation with BMI, age, alcohol units, regular periods or time trying to conceive (p > 0.05).

CONCLUSIONS AND RECOMMENDATIONS

Without evidence is it difficult to guide women regarding safe levels and forms of exercise when conception is hoping to be achieved. The variation of levels and types of exercise in our cohort was extensive. Exercise is an easily modifiable, affordable, and feasible lifestyle choice, which is currently ignored in the fertility setting but could have the potential to improve fertility without an additional risk. A large, optimally designed, clinical trial assessing the effects of optimised exercise on fecundability is urgently needed to gain insights into the feasibility of this life style change to improve fertility outcomes and to understand the underlying biological mechanisms involved.