



The Prevalence of Eating Disorders in Infertile Women

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Eating Disorders

Lifetime prevalence rates:


- **Anorexia Nervosa: 0.3% to 3.7% (APA, 2006)**
 - **Bulimia Nervosa: 1% to 4% (APA, 2006)**
 - **EDNOS not known**
 - **Binge Eating Disorder: 0.6 to 2.7% (Striegel-Moore et al., 2006)**
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Infertility...

Infertility affects about 6.1 million people in the United States. (American Society of Reproductive Medicine, 2000).


A high number of women attending infertility clinics have undiagnosed eating disorders (Stewart & MacDonald, 1987; Stewart et al., 1987).






Eating Disorders & Infertility

Stewart et al., 1990 found that the prevalence of eating disorders was 2-4 times higher than predicted by eating disorder population and general practice studies of women in this age group.






Relevance of Research

- There is evidence that previous or current eating disorders negatively impact women's fertility and pregnancy outcomes (Sollid, Wisborg, Hjort & Secher, 2004; Bulik et al., 1999; Brinch, Isager & Tolstrup, 1988; Stewart, Raskin, Garfinkel, MacDonald, & Robinson, 1987).
 - An undiagnosed, undisclosed, or untreated eating disorder may interfere with the outcome of infertility treatment and place the mother and baby at risk for negative health outcomes (Franko et al., 2001).
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Methods

Sample:

- Infertile women ($N=82$) at Boston IVF
 - Mean age: 35.3 (range 27-43 years; $sd = 4.0$)
 - Primarily Caucasian (89%), married (96%), and well-educated (M yrs = 16.4; $sd = 2.7$)
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Data Collection

- 1) Self-report measures were used to assess eating disorder pathology, exercise, smoking/alcohol use
 - 2) Follow-up diagnostic telephone interviews established infertility status and self-disclosure of eating disorder history to medical providers
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Measures

Self report:

- *Eating Disorder Examination Questionnaire*
- *The International Physical Activity Questionnaire*
- *Self-report questionnaire*

Telephone interviews:

- *The Structured Clinical Interview for DSM-IV (SCID) Module H- Eating Disorders*
 - *Brief Demographic Form (education, infertility status, age, disclosure of ED)*
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Demographic Comparisons between Study Groups

	No ED	ED	
	<i>M (SD)</i>	<i>M (SD)</i>	<i>p-value</i> ^a
Age	35.2 (4.1)	35.5 (3.8)	0.764
Education	16.5 (2.8)	16.1 (2.4)	0.537
Spouse's education	16.3 (2.7)	15.7 (2.9)	0.442
Height	64.7 (2.9)	65.5 (3.3)	0.291

^A Independent sample t-test assuming equal variance was used except where noted.

^B Independent sample t-test assuming non-equal variance was used.





Demographic Comparisons between Study Groups

	No ED		ED		<i>p</i> -value ^a
	<i>M (SD)</i>		<i>M (SD)</i>		
Weight (lbs)	149.9	(35.1)	157.8	(51.8)	0.459
BMI	25.2	(5.1)	25.8	(6.5)	0.711
Infertility X	27.8	(26.4)	21.7	(10.1)	0.351
Treatment X	8.1	(14.3)	6.6	(27.7)	0.373 ^b

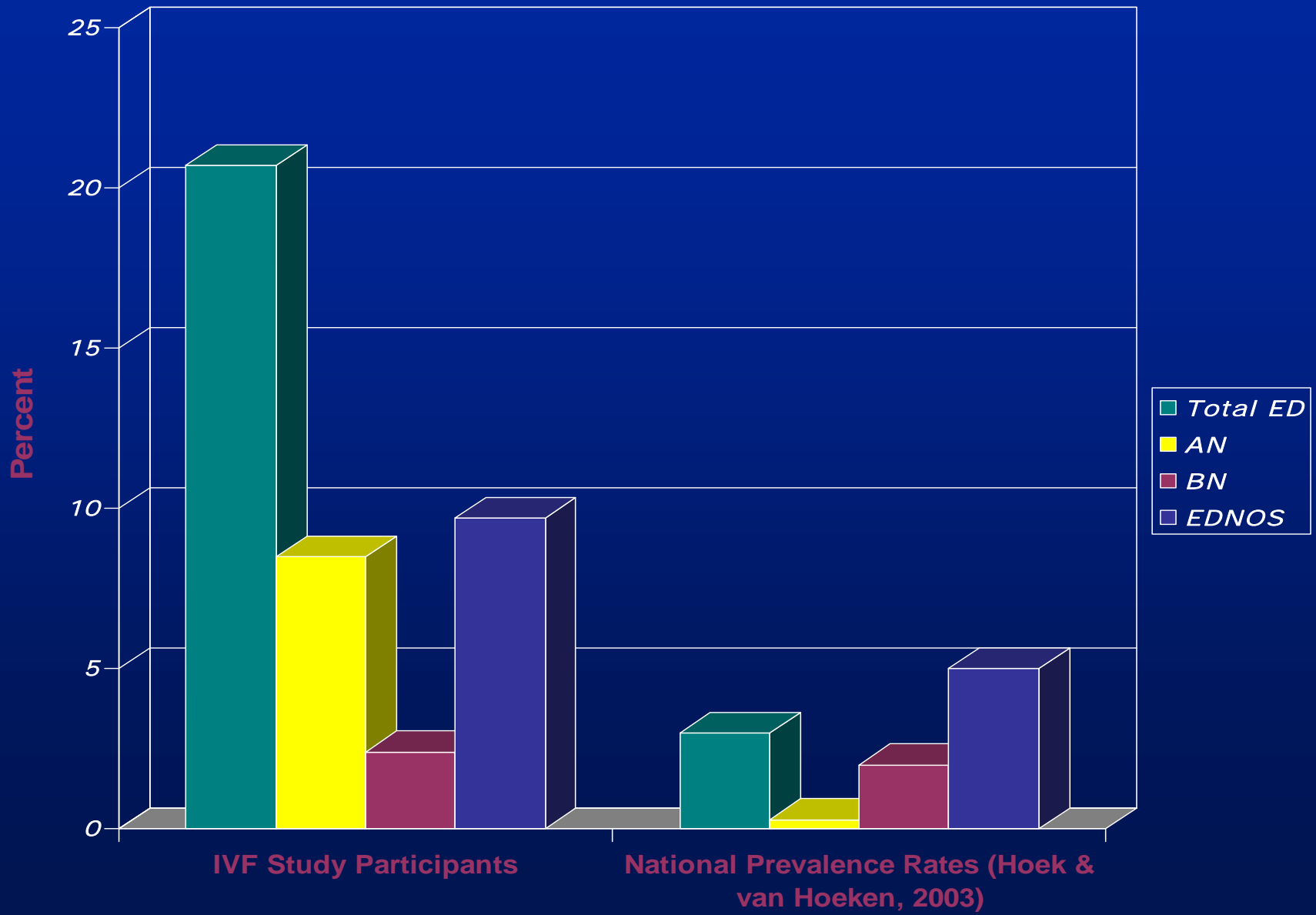
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Lifetime Eating Disorder Prevalence Rates



Study Population Compared to Community Sample (CS)

Scale	ED <i>M (SD)</i>	Non -Ed <i>M (SD)</i>	CS <i>M (SD)</i>
Global Score	1.90* (1.23)	1.19* (0.82)	0.93 (0.80)
Dietary Restraint	1.50 (1.40)	1.21 (1.10)	0.94 (1.09)
Eating Concern	1.12* (1.21)	0.36* (0.60)	0.26 (0.59)
Shape Concern	2.67* (1.57)	1.82* (1.25)	1.33 (1.09)
Weight Concern	2.29* (1.43)	1.46 (1.19)	1.18 (0.92)

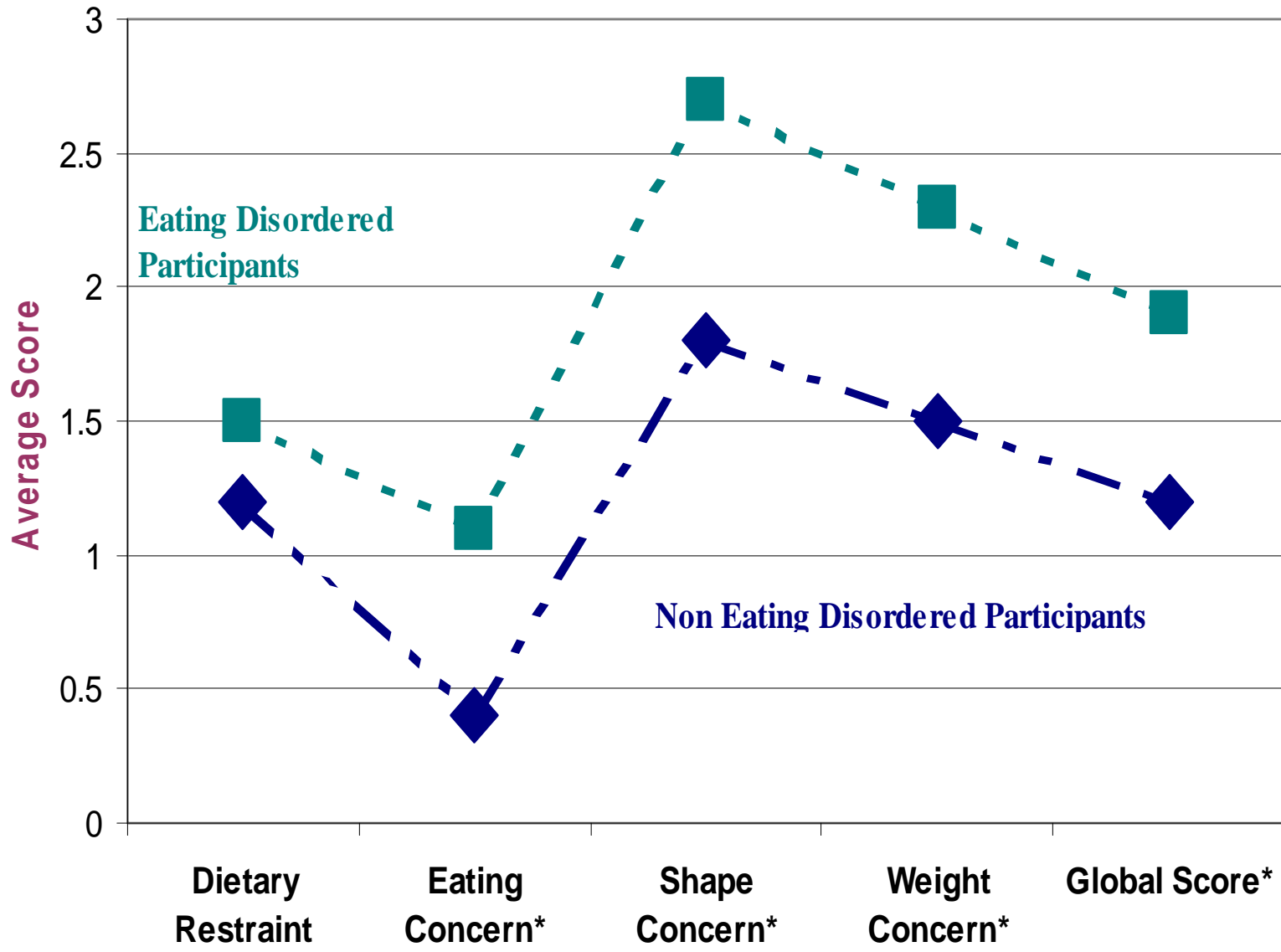
EDE-Q Scores for the Two Study Groups

	No ED N = 65 M (SD)	ED N = 17 M (SD)	p-value ^a
Dietary Restraint	1.2 (1.1)	1.5 (1.4)	0.359
Eating Concern	0.4 (0.6)	1.1 (1.2)	0.022 ^B
Shape Concern	1.8 (1.3)	2.7 (1.6)	0.020
Weight Concern	1.5 (1.2)	2.3 (1.4)	0.038
Global Score	1.2 (0.8)	1.9 (1.2)	0.037 ^B

^A Independent sample t-test assuming equal variance was used except where noted

^B Independent sample t-test assuming non-equal variance was used

Group Differences in EDE-Q Factors



Eating Disorders Examination Questionnaire (EDE-Q)

* p < .05



Comparison of Exercise Behavior between the Two Groups in MET Scores - IPAQ Short Form

	ED	No-ED	<i>p</i> -value
	<i>N</i> = 17	<i>N</i> = 65	
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	

Vigorous	872.94 (1311.04)	682.22 (958.10)	.292
Moderate	517.65 (536.185)	312.98 (473.70)	.201
Walking	556.15 (775.18)	775.25 (1529.85)	.563


All scores are in MET-min






Non-Disclosure of Eating Disorders to Healthcare Providers

The majority (76.4%) reported that they did not disclose their eating disorder history or current eating disorder to their infertility health provider while the remaining (23.6%) did not answer this question.






Discussion

- 20.7% of the participants met criteria for a past or current eating disorder .
 - All who met lifetime prevalence for AN were in remission (8.53%); more than *double* the reported lifetime prevalence rate for AN.
 - Approximately 8.5% of the participants met lifetime criteria for BED, more than 3 times the reported rate.
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Possible explanation for high prevalence rates:

- Eating disorders disrupt the reproductive system
 - Hormonal disturbances are common in ED patients even those in remission
 - Participants may be engaging in chaotic eating or dieting
 - Participants may have too much or too little body fat
 - Participants may have subclinical eating disorders
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Study Limitations

- Small sample
 - External validity: results may only be generalizable to women who can afford infertility treatment
 - Participants' BMI's may have changed from the beginning of treatment
 - In-person diagnostic interviews may have been more accurate at diagnosing EDs
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Future Directions

- Infertility clinics would be well advised to include an eating disorder screening tool as part of the initial intake and be able to offer appropriate referrals
 - Interventions and assessments developed for infertility health providers to screen patients for past and current eating disorders
 - Targeted research assessing the prevalence of binge eating disorder in an infertile population
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THANK YOU

