Eating disorders and sport

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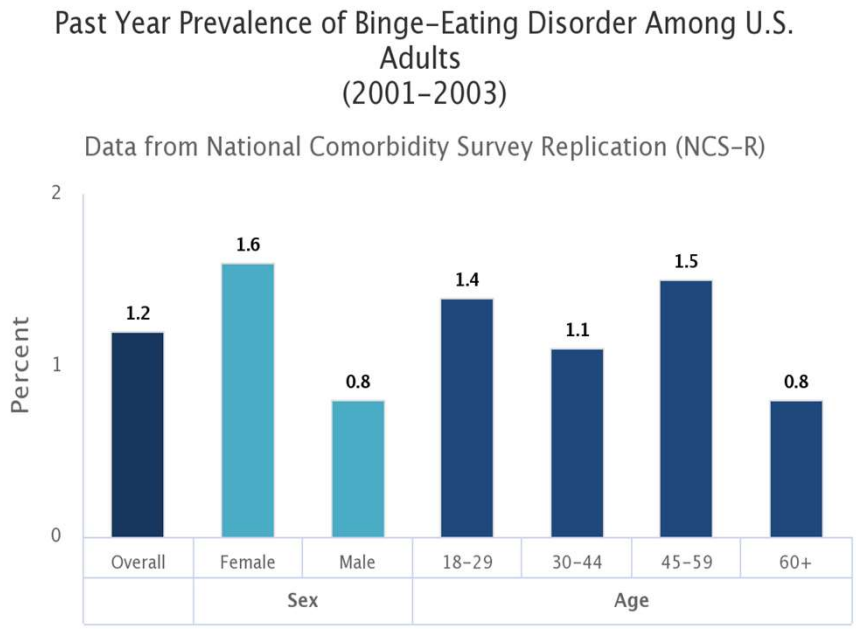
Eating disorders (ED)?

- Eating disorders was defined in 2010 as: **"a behavior disorder aiming to control weight and significantly impairing physical health and psychosocial adaptation, without being secondary to a medical condition or another psychiatric disorder."**
- Anorexia
  Bulimia
  Binge eating disorder

Prevalence of binge eating disorders



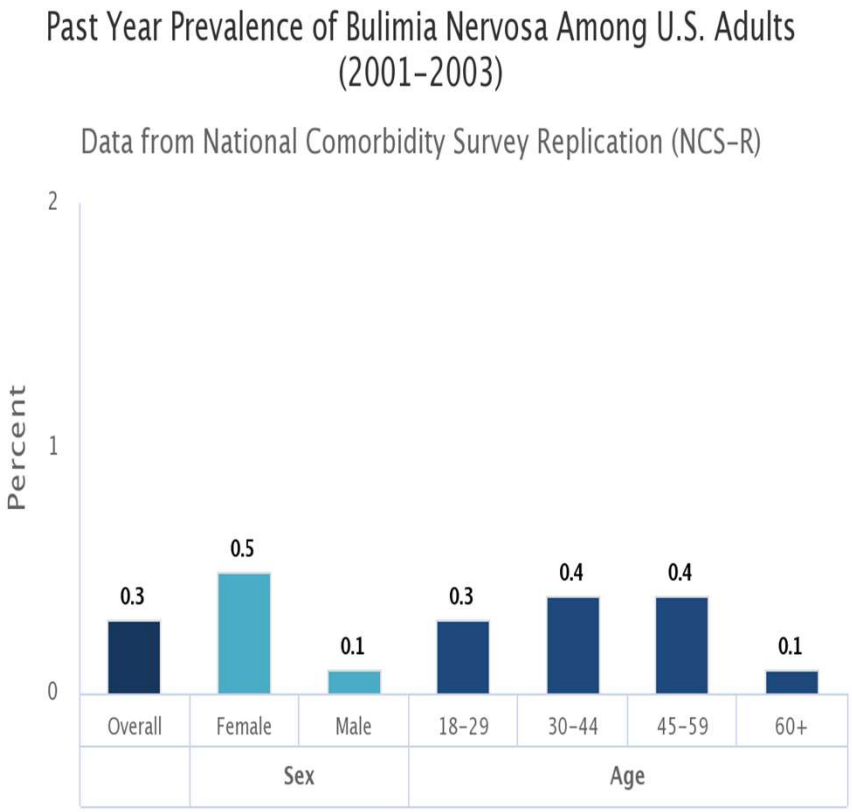
•Figure 1 shows the past year prevalence of binge eating disorder in adults.

- The overall prevalence of binge eating disorder was 1.2%.
- Prevalence of binge eating disorder was twice as high among females (1.6%) than males (0.8%).

•Based on Sheehan Disability Scale associated with past year behavior, 62.6% of people with binge eating disorder had significant impairment of wich 18.5% had severe impairment.

•The lifetime prevalence of binge eating disorder was 2.8% (NIH, 2023).

Bulimia nervosa?



- Figure 2 shows the past year prevalence of bulimia nervosa in adults.
  - The overall prevalence of bulimia nervosa was 0.3%.
  - Prevalence of bulimia nervosa was five times higher among females (0.5%) than males (0.1%).
- Based on Sheehan Disability Scale associated with past year behavior, 78% of people with bulimia nervosa had significant impairment of which 43.9% had severe impairment.
- The lifetime prevalence of bulimia nervosa was 1% (NIH, 2023).

Anorexia?

- The lifetime prevalence of anorexia nervosa in adults was 0.6%.
- Lifetime prevalence of anorexia nervosa was three times higher among females (0.9%) than males (0.3%).

Psychiatric Comorbidities?

Lifetime Co-morbidity of Eating Disorders with Other Core Disorders Among U.S. Adults Data from National Comorbidity Survey Replication (NCS-R)			
	Anorexia Nervosa (%)	Bulimia Nervosa (%)	Binge-Eating Disorder (%)
Any Anxiety Disorder	47.9	80.6	65.1
Any Mood Disorder	42.1	70.7	46.4
Any Impulse Control Disorder	30.8	63.8	43.3
Any Substance Use Disorder	27.0	36.8	23.3
Any Disorder	56.2	94.5	78.9

•More than half (56.2%) of patients with anorexia nervosa
• 94.5% with bulimia nervosa
• 78.9% with binge eating disorder

met criteria for at least one of the core DSM-IV disorders assessed in the NCS-R.

•All three eating disorders had the highest comorbidity with any anxiety disorder.

Etiology?

Genetic?

Individual psychological factors (Body image)

Environment : Family? Sociocultural CTXT

Genetic etiology?

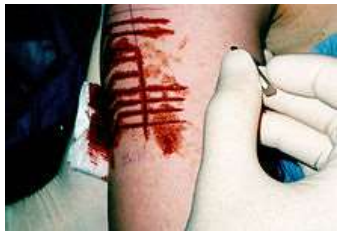
Studies indicate that the risk of having a child with an eating disorder when another family member already has an eating disorder is 3%, whereas if there is no one in the family with an eating disorder, the risk is 0.3%.

But it would be mainly environmental factors that would influence this transmission

Etiology? Individual Factors

Psychological characteristics of these young people?

- Will to avoid conflict with their parents (family characteristics)
- Body image disturbances (not satisfied with their bodies, never feel good enough, lack of self-confidence)
- Sometimes accompanied by self-harming behaviors (self-cutting).



How do eating disorders start? 1. Restriction

State of deprivation at the food level with a focus on nutrition	Difficulties of concentration	Distractibility	Hyperemotivity	Irritability	Makes the subject hypersensitive to their external environment

During stressful events, emotions and anxiety lead to loss of control over food intake.

Risk of Eating disorder

Eating disorder?

ANOREXIA

Anorexia?

Restrictive Anorexia
(with intensive exercises)

Anorexia with vomiting
or episodes of bulimia (also known as mixed bulimia)

Anorexia?

These are changes in dietary or exercise habits. But also dietary restrictions or intensive physical exercise practices.

Controlling one's diet allows the individual to experience a sense of well-being. This control gradually becomes stronger than anything else.

What happens when anorexia sets in?

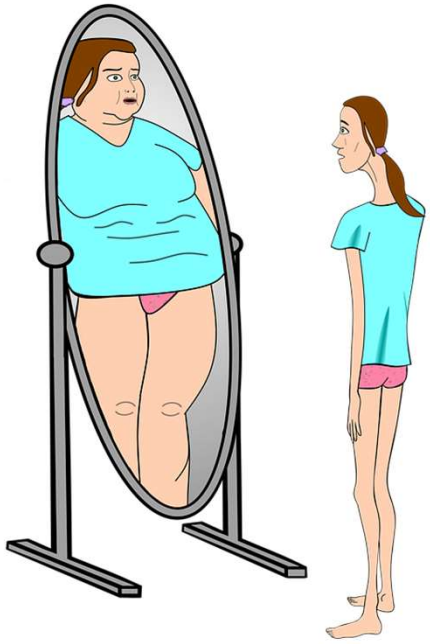
- The break with previous eating habits becomes clear.
- The individual panics at the drop of a pound, weighs himself constantly and performs body checks.
- The person engages in overly intense physical activity
- At this moment, physical activity can become compulsive

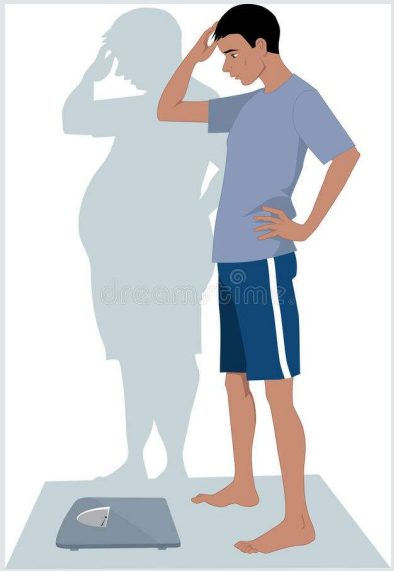
Anorexia

Constant preoccupation with body weight
Significant weight loss
Body schema abnormalities
Complicated food-handling rituals
Intense physical exercise
Perfectionism similar to OCD rituals
Amenorrhea
Medical complications and high mortality

Body image distortions

Young people don't see themselves as skinny, and even feel fat. There is a discrepancy between the real image of his body and the emotional image (= body image).





What are the physical consequences?

BMI = 18.5 and 24.9

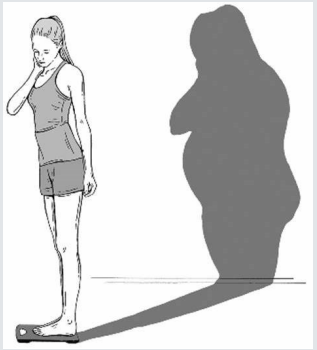
The person's weight curve drops and he becomes thinner.

He enters the following stages of emaciation

Moderate anorexia = BMI< 17.5

Severe anorexia = BMI< 15

Critical anorexia = BMI < 12.5



IN GIRLS: - Cessation of menstruation- Low estrogen levels affecting bone formation

IN BOYS :- Fall in sex hormones- Risk of loss of bone mass

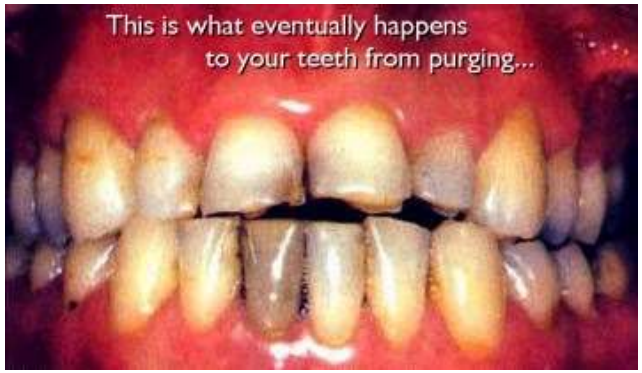
Bulimia

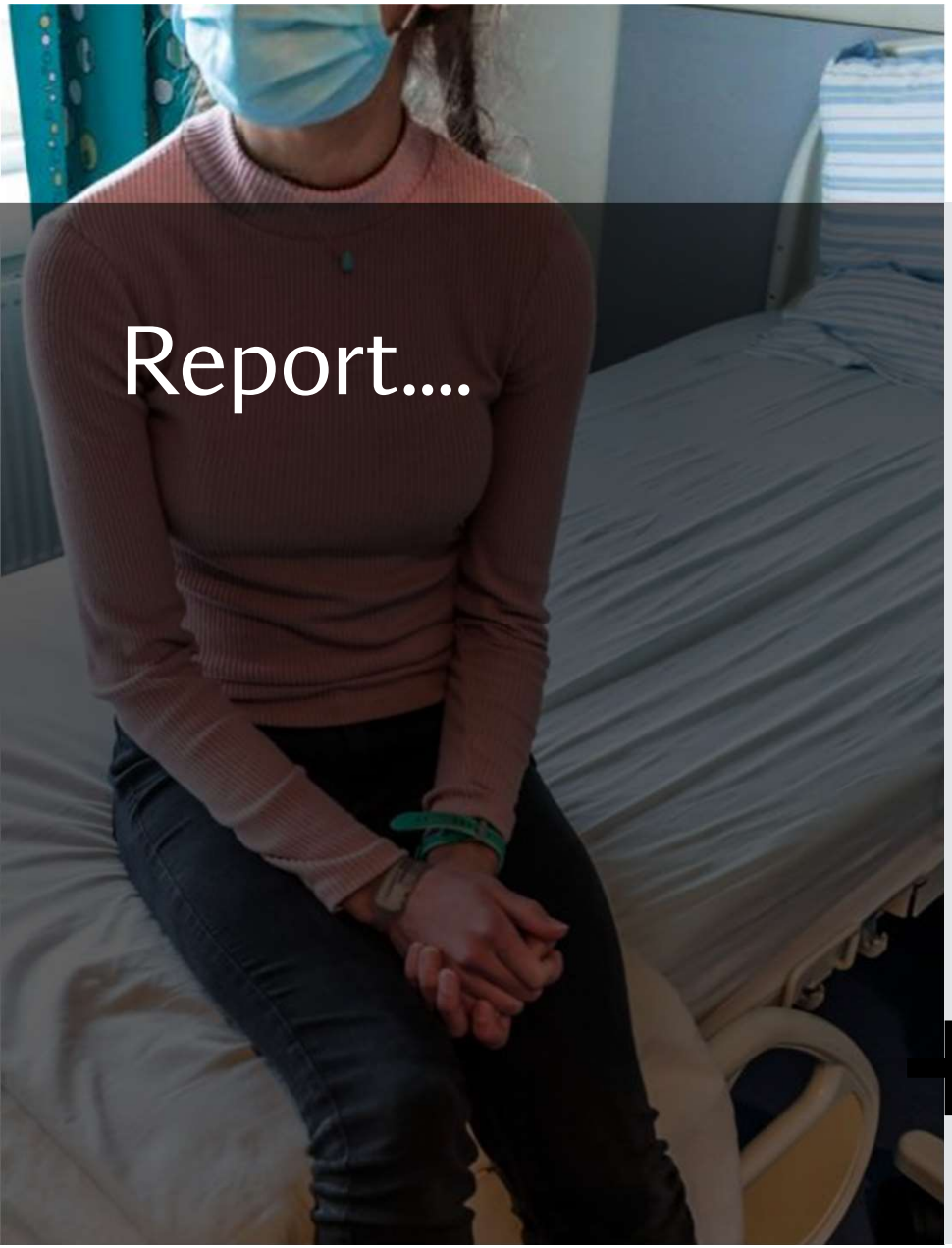
- Isolated or associated with anorexia
- Often associated with substance abuse
- Episodic and rapid intake of large quantities of food
- At the end of the episode: sleep (dissociative episode?)
- After the episode, self-loathing and guilt
- After bulimia, a drastic diet
- Often induces vomiting
- Often taking laxatives and/or diuretics
- More difficult to diagnose

Bulimia

Medical complications

- Esophageal lesions
- Cardiac risk
- Dermatological lesions
- Tooth lesions





Report....

From January 2021 to March 2021: 40% increase in requests for consultation or hospitalization for ED.

Why?

Confinement: isolation, stress, loss of control

Increased use of social networks

L'Encéphale 48 (2022) 206–218

Disponible en ligne sur ScienceDirect www.sciencedirect.com

Elsevier Masson France EM|consulte www.em-consulte.com

ELSEVIER

Revue de la littérature

Lien entre usage des réseaux sociaux et image corporelle chez les adolescents : une revue systématique de la littérature

Investigating the relationship between social media use and body image among adolescents: A systematic review

M. Revranche, M. Biscond, M.M. Husky*

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Social networks and body image

- Frequency of social network use linked to BI complications (body image) in both men and women
- Not all use is harmful to the Body Image:

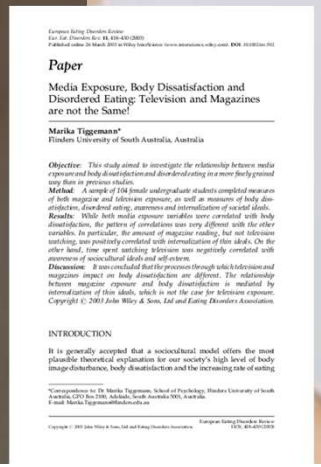
(Revranche et al., 2022)

  - Exposure to selfies
  - Exposure to manipulated photos
  - Engaging in conversations about appearance
  - Receiving feedback on one's appearance

Relationship between social networks and BI not direct

- Self-objectification
- Internalization of the physical ideal conveyed on social networks
- Monitoring their own body
- Social comparison

→ Caution: The studies didn't really determine whether using social networks causes body image problems or if BI problems encourage individual use social network more,



Paper

Media Exposure, Body Dissatisfaction and Disordered Eating: Television and Magazines are not the Same!

Marika Tiggemann*
Flinders University of South Australia, Australia

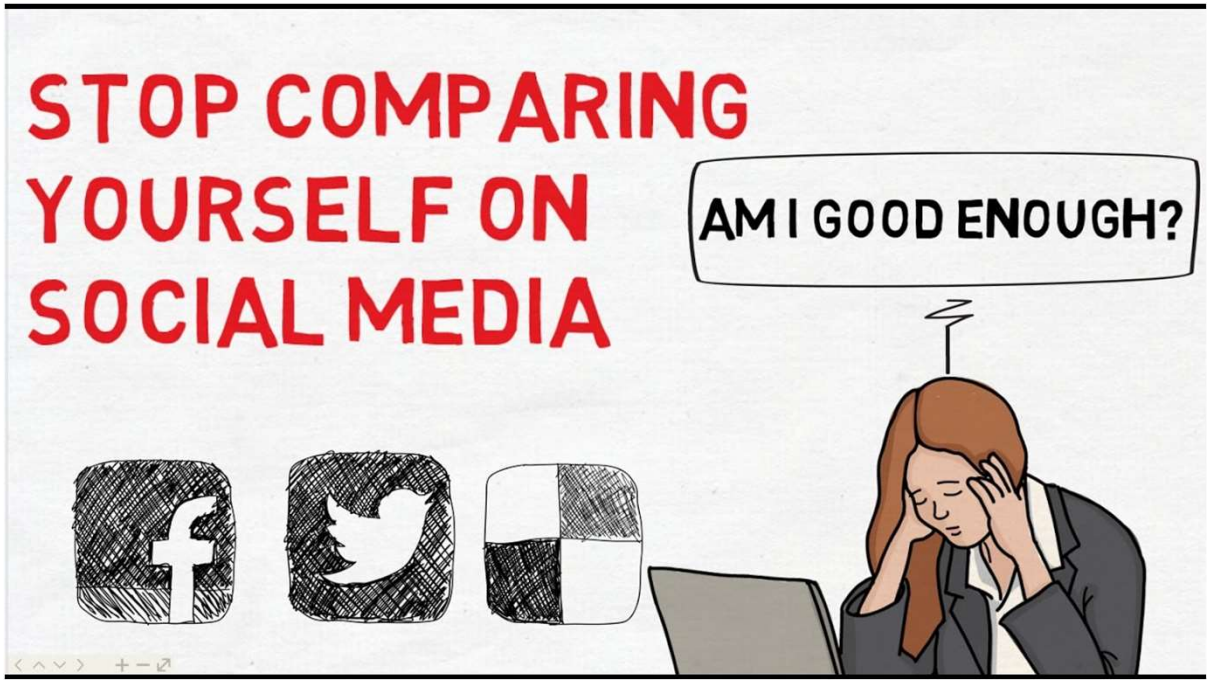
Objective: *This study aimed to investigate the relationship between media exposure and body dissatisfaction and disordered eating in a more finely grained way than in previous studies.*
Method: *A sample of 104 female undergraduate students completed measures of both magazine and television exposure, as well as measures of body dissatisfaction, disordered eating, awareness and internalization of societal ideals.*
Results: *While both media exposure variables were correlated with body dissatisfaction, the pattern of correlations was very different with the other variables. In particular, the amount of magazine reading, but not television watching, was positively correlated with internalization of thin ideals. On the other hand, time spent watching television was negatively correlated with awareness of sociocultural ideals and self-esteem.*
Discussion: *It was concluded that the processes through which television and magazines impact on body dissatisfaction are different. The relationship between magazine exposure and body dissatisfaction is mediated by internalization of thin ideals, which is not the case for television exposure.*

INTRODUCTION

It is generally accepted that a sociocultural model offers the most plausible theoretical explanation for our society's high level of body image disturbance, body dissatisfaction and the increasing rate of eating

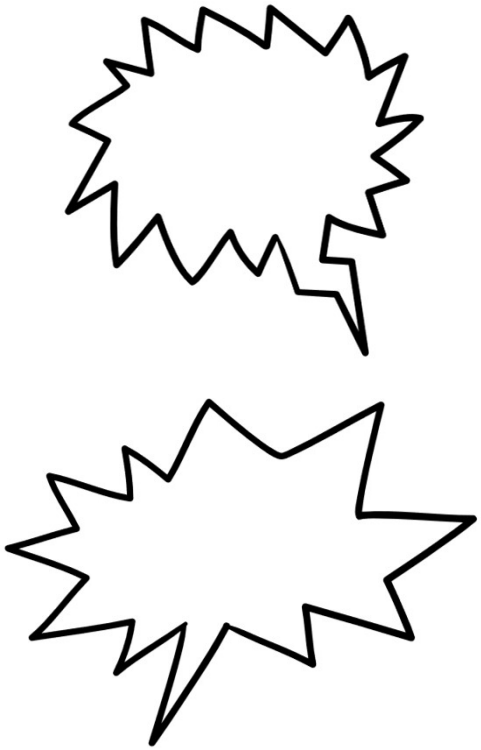
The social comparison phenomenon induced by social networks lead people to internalize the thinness standards linked to the messages they receive

→ compensative behaviors



Compensative Behavior= Sport But why?

- Compensate for calories consumed
- Lose weight no matter how much you eat
- Emotional regulation of negative affects related to stress, anxiety and depression



The function of exercices and its place in ED remains controversial:

- No significant relationship between desire for leanness and quantitative component of exercices
- Qualitative component of sport?
- Pathological Physical Exercices (PPE)

Physical hyperactivity: a risk factor for anorexia nervosa?

- Physical hyperactivity: excessive, repetitive physical activity without real pleasure: motivated by a desire to lose calories and obtain a feeling of self-satisfaction rather than a quest for well-being.
- + More than 6 hours a week??? (Beumont et al., 2004)
- How many of you take part in more than 6 hours of physical activity a week?
- Not time, but quality: a solitary routine that has to be completed every day, in the same way and at the same time (obsessive behavior).

Pathological Physical exercices ?
Compulsive exercises

(i) Unawareness of body signals of pain and fatigue

(ii) Rigid schedule maintenance

(iii) Prioritize exercises

(iv) Distress and anxiety when unable to perform

Anorexia and sport ....

Major body dissatisfaction, a **quest for body control** can lead to pathological physical exercises (PPE):

- 44 to 80% in restrictive AN
- 43 to 53% in mixed bulimia
- 21 to 39% for BN

Distinction between Anorexia Nervosa and Anorexia Athletica

Quest for a slimming ideal

Performance research:

- Secondary to excessive sporting activity
- No BI distortion
- Reversibility after retirement from sport

Physical activities can be a part of the treatment for patients with ED?

Body control quest

Inappropriate compensative behavior (DSM-5)

High level of physical exercises to assuage bodily control

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CLINICAL ETHICS

Risk and supervised exercise: the example of anorexia to illustrate a new ethical issue in the traditional debates of medical ethics

S Giordano

J Med Ethics 2005;31:15-20. doi: 10.1136/jme.2003.004812

Sport and physical activity is an area that remains relatively unexplored by contemporary bioethics. It is, however, an area in which important ethical issues arise. This paper explores the case of the participation of people with anorexia nervosa in exercise. Exercise is one of the central features of anorexia. The presence of anorexics in exercise classes is becoming an increasingly sensitive issue for instructors and fitness professionals. The ethics of teaching exercise to anorexics has, however, seldom, if ever, been addressed. Codes of ethics and legislation do not offer guidelines pertinent to the case and it is left unclear whether anorexics should be allowed to participate in exercise classes. It is shown by this paper that there are strong ethical reasons to let anorexics participate in exercise classes. However, the paper also explains why, despite these apparently cogent ethical reasons, there is no moral obligation to allow a person with anorexia to take part in exercise/sports activities.

Sports and physical activity represent one of the areas that have not yet been widely covered by bioethical reflection. Ethical issues often arise in sports and physical activity, issues which are, in important ways, similar to those often faced by healthcare professionals, but which present peculiarities that need to be addressed and explored.

Among the ethical conflicts that are more frequent in the context of sport and physical activity which are seldom discussed, are those raised by the participation of people who are for a variety of reasons unfit for a particular activity. A particular case is that of the participant with anorexia nervosa. The way anorexia raises problems and dilemmas in the context of physical activity is an interesting and compelling example of how the classic dilemmas of bioethics are increasingly found outside the boundaries of healthcare settings. The methods of bioethics will prove important in the articulation and resolution of the ethical dilemmas that occur in a context where people are neither professional nor personally expecting to meet ethical issues.

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of studies have analysed the relation between sports, exercise and anorexia.[1 2] One of the most appealing types of exercise for people with anorexia is probably exercise to music (ETM), both because of its increasing popularity[3] and for the following reasons:

- Exercise to music activities are mainly aerobic and therefore are best tailored for fat burning purposes;
- Classes are widely available and usually affordable to the general public;
- They are often "drop in classes": one can tour around different health clubs and different classes, thus hiding eventual overparticipation;
- The relationship between the teacher and the participant is normally impersonal and the goals of the participant are often unknown to the instructor;
- No medical certification is normally required;
- Given the impersonal character of the class, the person can "hide" in the group and hope to be unnoticed;
- In the group, the person with anorexia, who is likely to be, to a variable extent, debilitated, may find extra motivation to maintain the intensity of exercise at a high level.

Despite this, the ethics of teaching ETM to people with eating disorders has seldom, if ever, been addressed. This paper will set out to examine, for the first time, the ethical issues in teaching ETM to people with eating disorders. It will explore the ethical dilemmas that arise for the instructor in detail, using the methods of analytical investigation. I shall look at the relevant codes of ethics and pertinent legislation and will consider whether or not trainers have any ethical reason, or even a moral obligation, to allow the person with anorexia or another eating disorder to take part in their class.

ANOREXIA, EXERCISE, AND RISKS FOR HEALTH

One of the central clinical features of anorexia is physical activity. Exercise is a compensatory

Box 1

Supervision of exercise in those at risk—the case of the eating disordered participant

- Exercise and sports may be life threatening for the person with an eating disorder.
- The participation of people with eating disorders in sports and exercise is an increasingly sensitive issue for exercise professionals, because of the spread of the disorder and the high rate of participation of eating disordered people in exercise.
- There are neither legislative nor professional standards to guide fitness and sports trainers in the decision as to whether to allow the eating disordered participant to take part in their class/activity.
- There are valid ethical reasons to allow an eating disordered person to participate in exercise and sport.
- These ethical reasons may be based both on the principle of respect for people's autonomy and on the principle of beneficence.
- Despite these ethical reasons, there is no ethical obligation to allow a person with eating disorders to take part in exercise and sport.
- While accepting a person who is unfit for a type of sport/physical activity can be seen in some circumstances, as a supererogatory act—such an act cannot be considered as an ethical obligation.

List of codes and regulations

Register of Exercise Professionals: *Exercise and Fitness Coaching, Teaching and instructing Code of Ethics* (http://www.exerciseregister.org)
RIDDOR—Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (www.hse.gov.uk/pubns/hse31.pdf)
COSHH—Control of Substances Hazardous to Health-2002 (http://www.hse.gov.uk/hthdir/noframes/coshh/index.htm)
PPE—The Personal Protective Equipment Regulations 2002 (SI 2002 No. 1144)–(www.hmso.gov.uk/stat.htm)

As a trainer or coach, would you allow one of your athletes whom you know to be anorexic to take part in sports?

Why ?

Conceptual complexity and interventional uncertainty

– Stopping exercise if the patient is underweight?

– Include exercices in an adapted way?

→ Improving the qualitative component of exercices by focusing on the group and including supervison by the clinical team

TAB 3
Summary of recommendations (R) for PPE processing

R1	Integrating Physical Activities into treatment to target PPE	Gradually reintroduce physical exercise Consider patient's overall condition to determine PA's level and type Evaluate and reassess patients' overall condition throughout treatment
R2	Promoting the benefits of the group and pleasure to avoid ascetic and compulsive behaviors	Encourage functional exercise by modifying the underlying reasons for exercise Offer exercise experiences for hedonic reasons, while promoting socialties
R3	Include intervals of relaxation/rest to reconnect with bodily sensations	Incorporate variable-intensity exercise into treatment, including relaxation and stretching exercises Allow experimentation with a variety/intensity of movements
R4	Include psycho-educational interventions to learn to identify PPE	Transmit knowledge of physical exercise to enable identification of dysfunctional exercise Identify dysfunctional beliefs about exercise Support exercise self-regulation
R5	Address emotions and cognitions related to exercise to change the function of behavior	Changing dysfunctional beliefs about exercise Promote emotional management Establish emotional regulation and functional problem-solving strategies

Conclusion

-Ambiguous relationship between sport and anorexia (risk factors for addiction)

- Issues focused on quality rather than quantity
- Management must focus on a qualitative modification of this Physical Activity

THANK YOU!


TILT
BRAVO! Vous avez dépensé 350 calories!
TILT
YES!
c'est pour qui la pizza 4 fromages supplément fromage?!!
COURIR PLUS POUR MANGER PLUS