Body Dysmorphic Disorder

Katharine A. Phillips, M.D.

Professor of Psychiatry and Human Behavior
The Warren Alpert Medical School of Brown University
Director, BDD Program, Rhode Island Hospital
Providence, RI

Teaching Points

- Body dysmorphic disorder (BDD) is a relatively common but underrecognized disorder
- BDD is associated with high rates of suicidality and markedly poor psychosocial functioning
- SRIs and CBT appear to often be efficacious for BDD

Questions

- What class of medications appears efficacious for BDD?

A. MAOIs
B. Tricyclics (excluding clomipramine)
C. SRIs
D. Neuroleptics

Questions

- What class of medications appears efficacious for delusional BDD (i.e., patients with delusional beliefs regarding perceived appearance flaws)?

A. Typical antipsychotics

B. Atypical antipsychotics

C. SRIs

D. Benzodiazepines

Questions

- What type of psychotherapy appears efficacious for BDD?

  A. Supportive therapy

  B. Exposure/behavioral experiments, response prevention, and cognitive restructuring

  C. Psychodynamic psychotherapy

  D. Relaxation techniques

Questions

- Cosmetic treatment (e.g., surgery, dermatologic treatment) for BDD appears to be:

  A. Always effective

  B. Usually effective

  C. Rarely effective

Questions

- The following behaviors are symptoms of BDD:

A. Excessive mirror checking
B. Compulsive grooming
C. Skin picking (to remove perceived blemishes)
D. Seeking reassurance about one's appearance
E. All of the above

Outline

- Diagnostic criteria
- Prevalence
- Clinical features
- Treatment
- Visual processing
- Diagnosis

BDD DSM-IV Criteria

A. Preoccupation with an imagined defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive.

B. The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

C. The preoccupation is not better accounted for by another mental disorder (e.g., dissatisfaction with body shape and size in Anorexia Nervosa).

Prevalence of BDD

- **Community/epidemiologic** 0.7-2.4%
  (4 studies; N = 373 – 2,552)
- **Students** (non-clinical) 2-13%
- **Inpatient psychiatry** (adult) 13-16%
- **Inpatient psychiatry** (adolescent) 7-14%
- **Dermatology** 9-12%
- **Cosmetic surgery** 3-53%

BDD Is Underdiagnosed

- In 5 studies in which adults were systematically screened for BDD, no patient with BDD had the diagnosis in their medical record
- In 2 adolescent samples, only 1 of 17 adolescents with BDD had the diagnosis in their medical record
- Reasons BDD is underdiagnosed:
  - » Embarrassment and shame
  - » Fear of being misunderstood or negatively judged
  - » Patients don't know it's a treatable disorder
  - » Patients aren't asked

Phillips et al, *Am J Psychiatry,* 1993; Phillips et al, *J Nerv Ment Dis,* 1996; Zimmerman and Mattia, *Compr Psychiatry,* 1998; Grant et al, *J Clin Psychiatry,* 2001; Dyl et al, *Child Psychiat Hum Dev,* 2006; Conroy et al, *Gen Hosp Psychiatry,* 2008

Demographic Features

- Age: 32.1 ± 11.7 (range, 6 to 80)
- Sex:

Female	61%
Male	39%

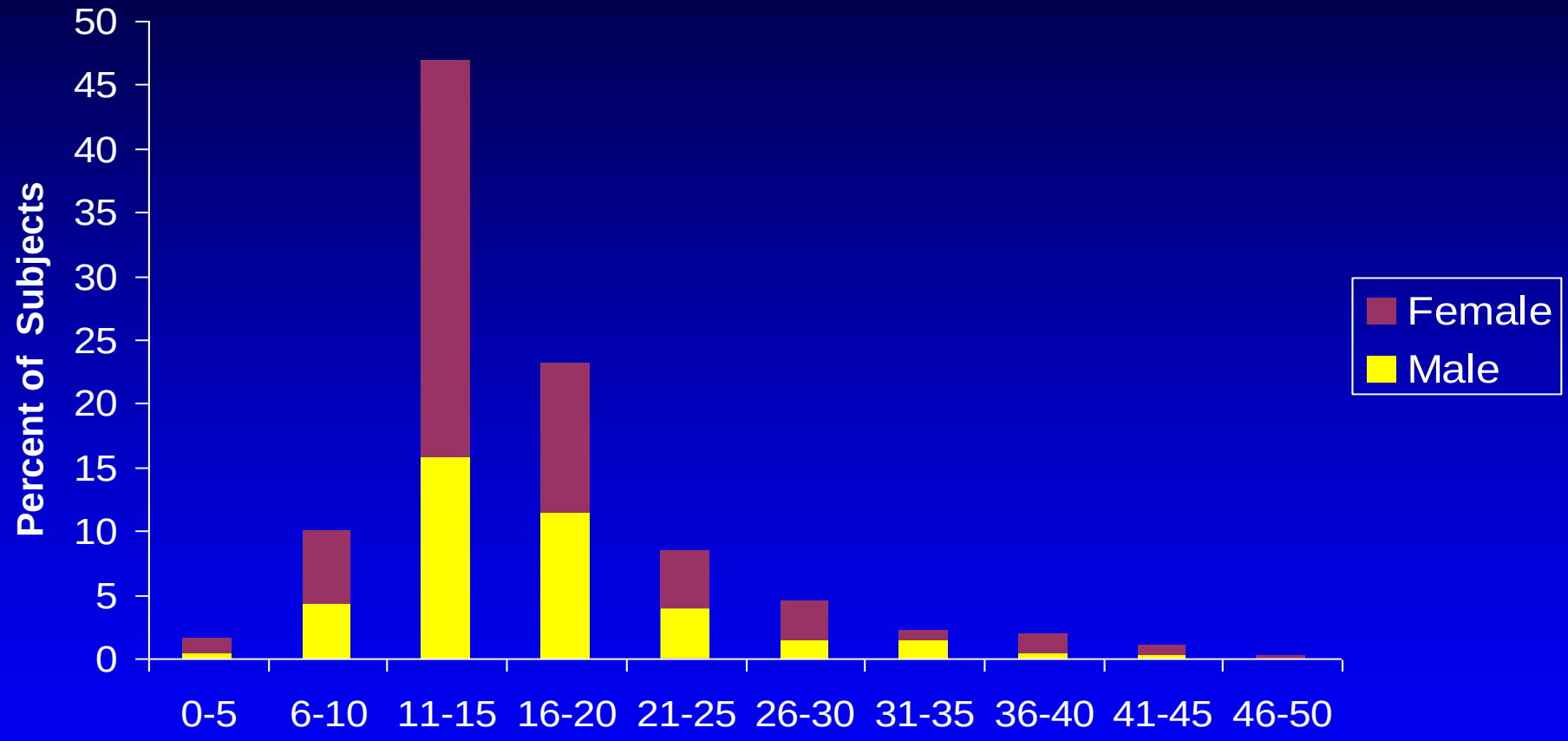
- Marital status:

Single	66%
Married	22%
Divorced	12%

N=507

Phillips et al, *J Nerv Ment Dis,* 1997; Phillips et al, *Psychosomatics,* 2005

BDD Age of Onset



70% of patients have onset of BDD before age 18

N=507

Phillips and Diaz, *J Nerv Ment Dis,*1997; Phillips et al, *Psychosomatics,* 2005

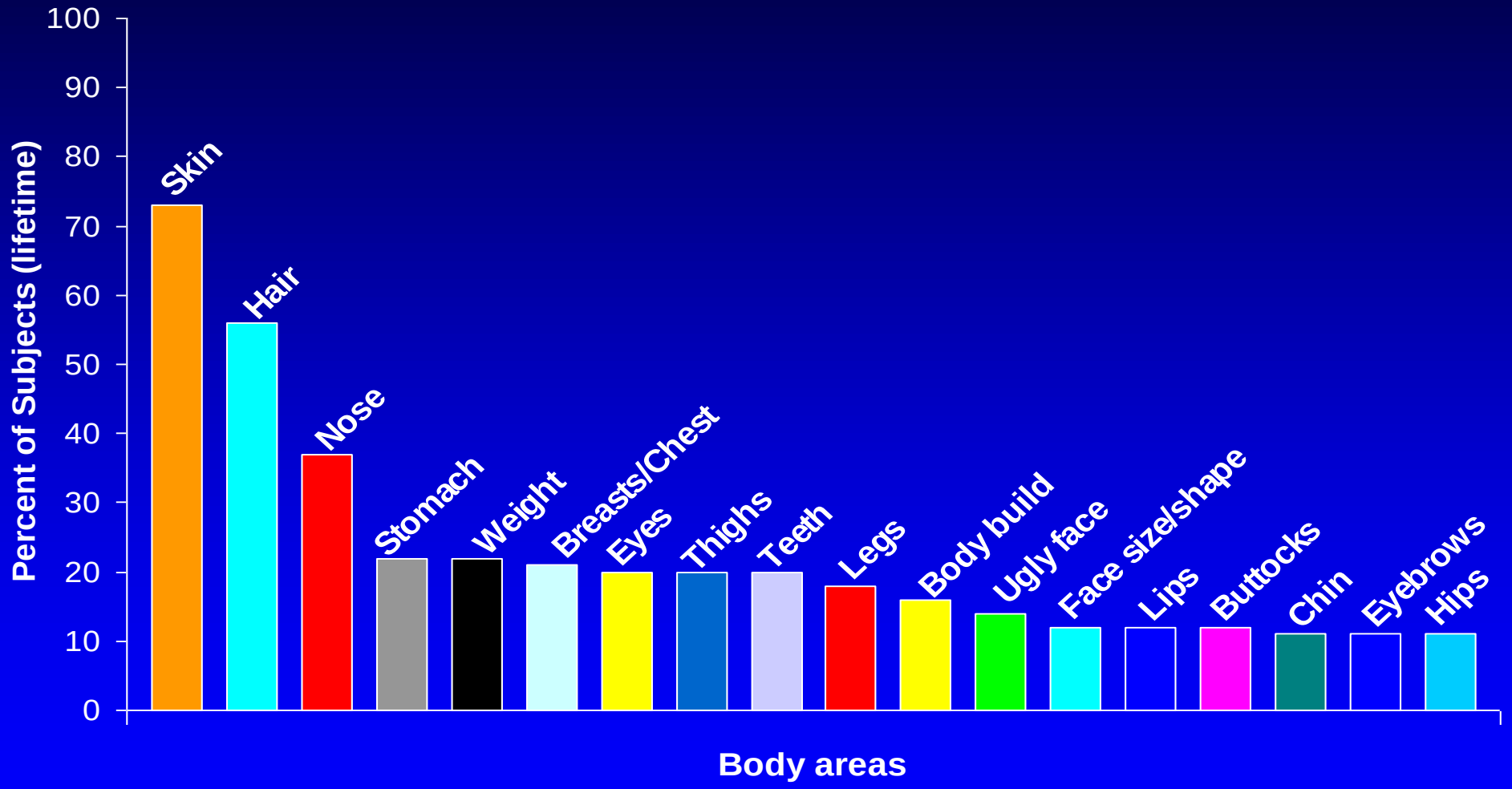
BDD Cognitions

- Obsessional, distressing preoccupations about perceived defects in appearance (involving any body area)
- Difficult to resist or control
- Time consuming (average 3-8 hours a day)
- Insight is usually absent or poor (~35% currently delusional)
- Ideas or delusions of reference are common (68% currently)

N=507

Phillips et al, *Am J Psychiatry,* 1993; Eisen et al, *Compr Psychiatry,* 2004; Phillips et al, *Psychosomatics,* 2005

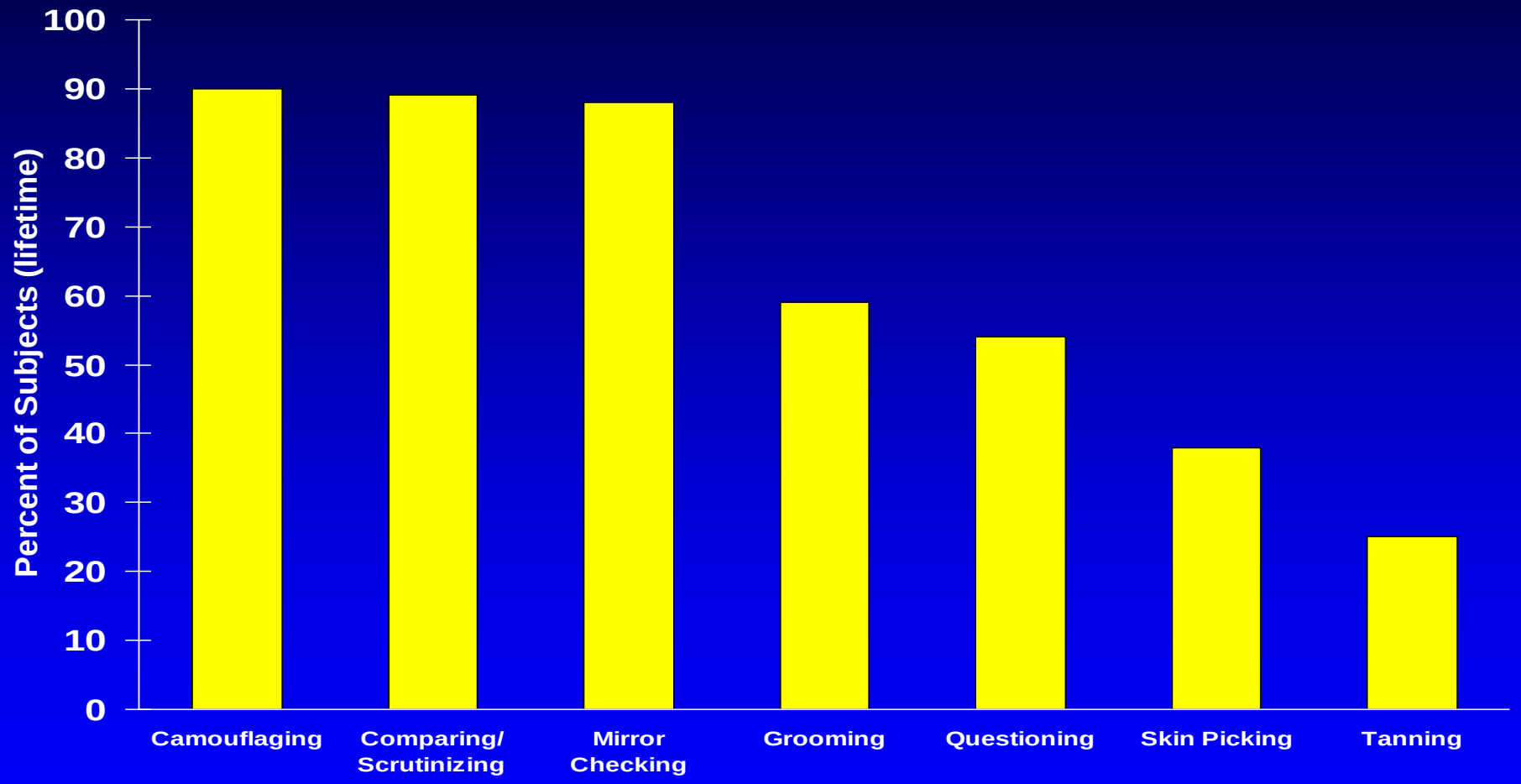
Body Areas of Concern



Phillips and Diaz, *J Nerv Ment Dis,* 1997; Phillips et al, *Psychosomatics,* 2005

N=507

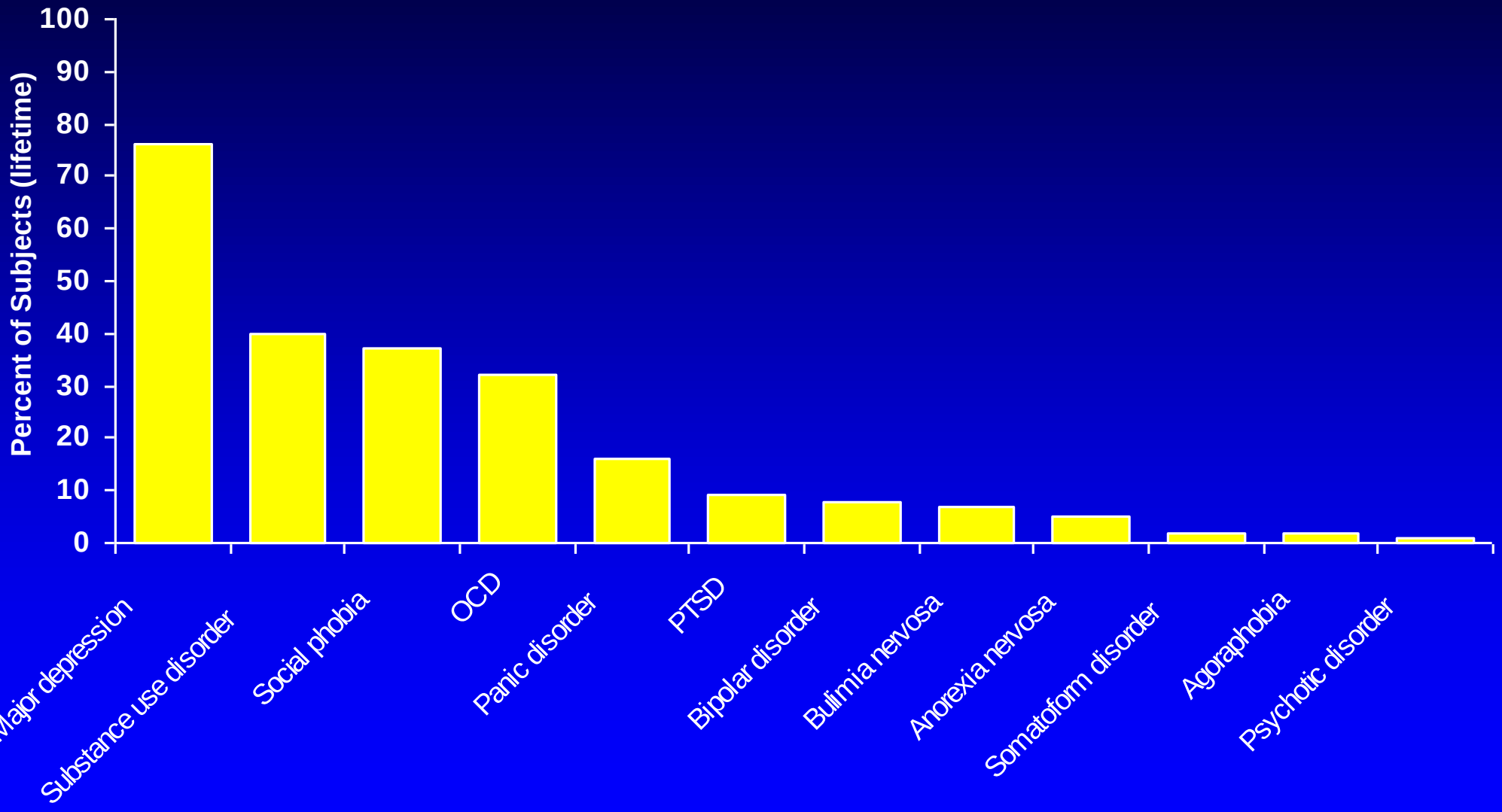
Compulsive Behaviors in BDD



Phillips and Diaz, *J Nerv Ment Dis,* 1997; Phillips et al, *Psychosomatics,* 2005

N=507

Comorbid Disorders



Gunstad and Phillips, *Compr Psychiatry,* 2003; Phillips et al, *Psychosomatics,* 2005

N=493

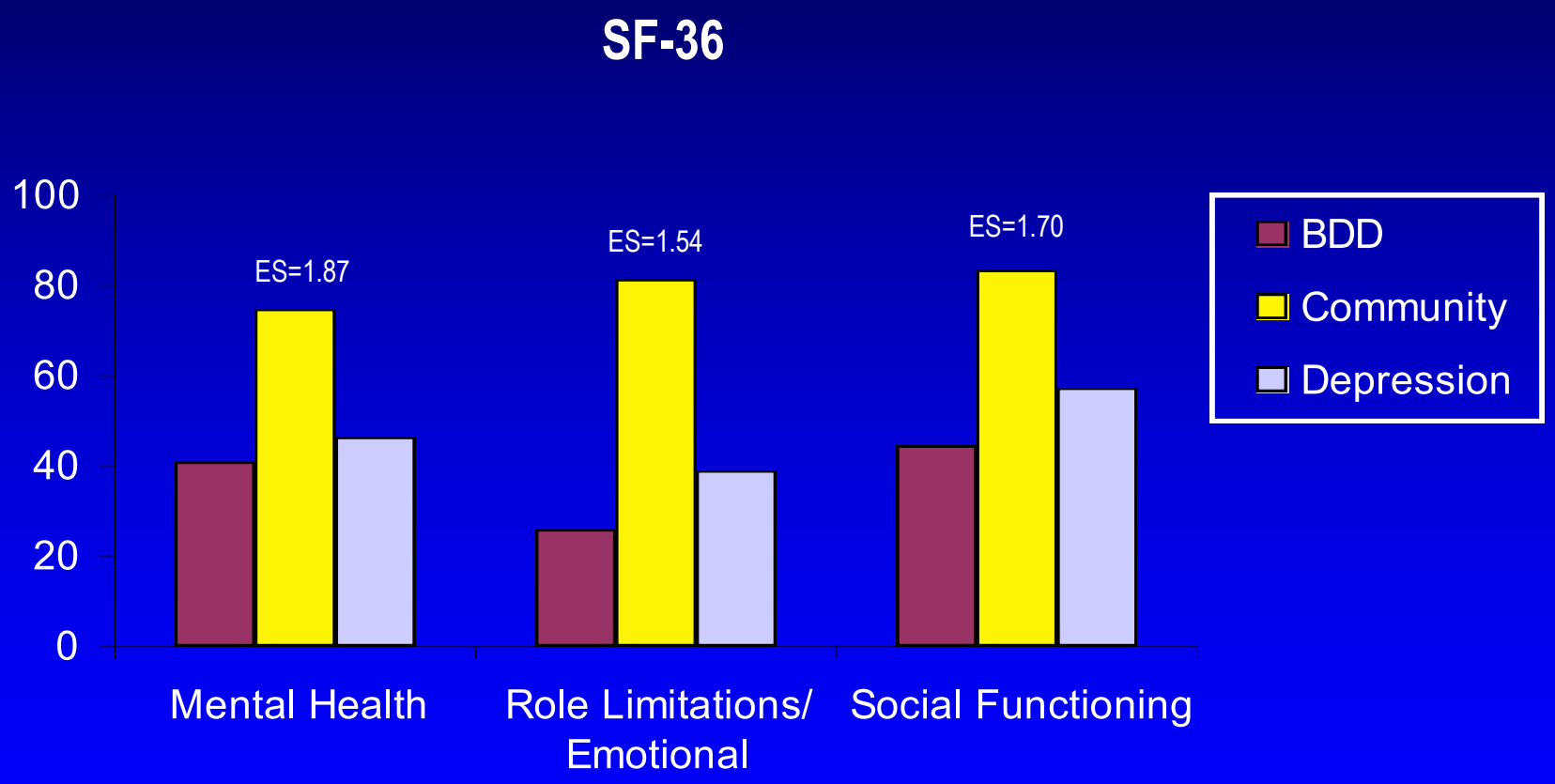
Functional Impairment and Suicidality

- Not working due to mental illness *(current)* 39%
- Receiving disability payments *(current)* 23%
- Housebound due to BDD *(lifetime)* 29%
- Psychiatrically hospitalized *(lifetime)* 38%
- Attempted suicide *(lifetime)* 24-28%
- Completed suicide *(annual rate)* 0.25%

N=507, N=141

Veale et al, *Br J Psychiatry,* 1996; Phillips and Diaz, *J Nerv Ment Dis,* 1997; Phillips et al, *J Clin Psychiatry,* 2005; Phillips et al, *Psychosomatics,* 2005; Phillips and Menard, *Am J Psychiatry,* 2006; Didie et al, *Compr Psychiatry,* 2008

Quality of Life



N=176

Phillips et al, *Compr Psychiatry,* 2005

BDD and Gender

- Females and males have more similarities than differences, including disliked body areas, compulsive behaviors, comorbidity, suicidality, receipt of cosmetic treatment. However…

Females are more likely to…

» Dislike weight, hips, breasts, legs, excessive body hair

» Have a comorbid eating disorder

» Camouflage, mirror check, pick their skin

Males are more likely to…

» Dislike genitals, small body build, thinning hair

» Have a substance use disorder

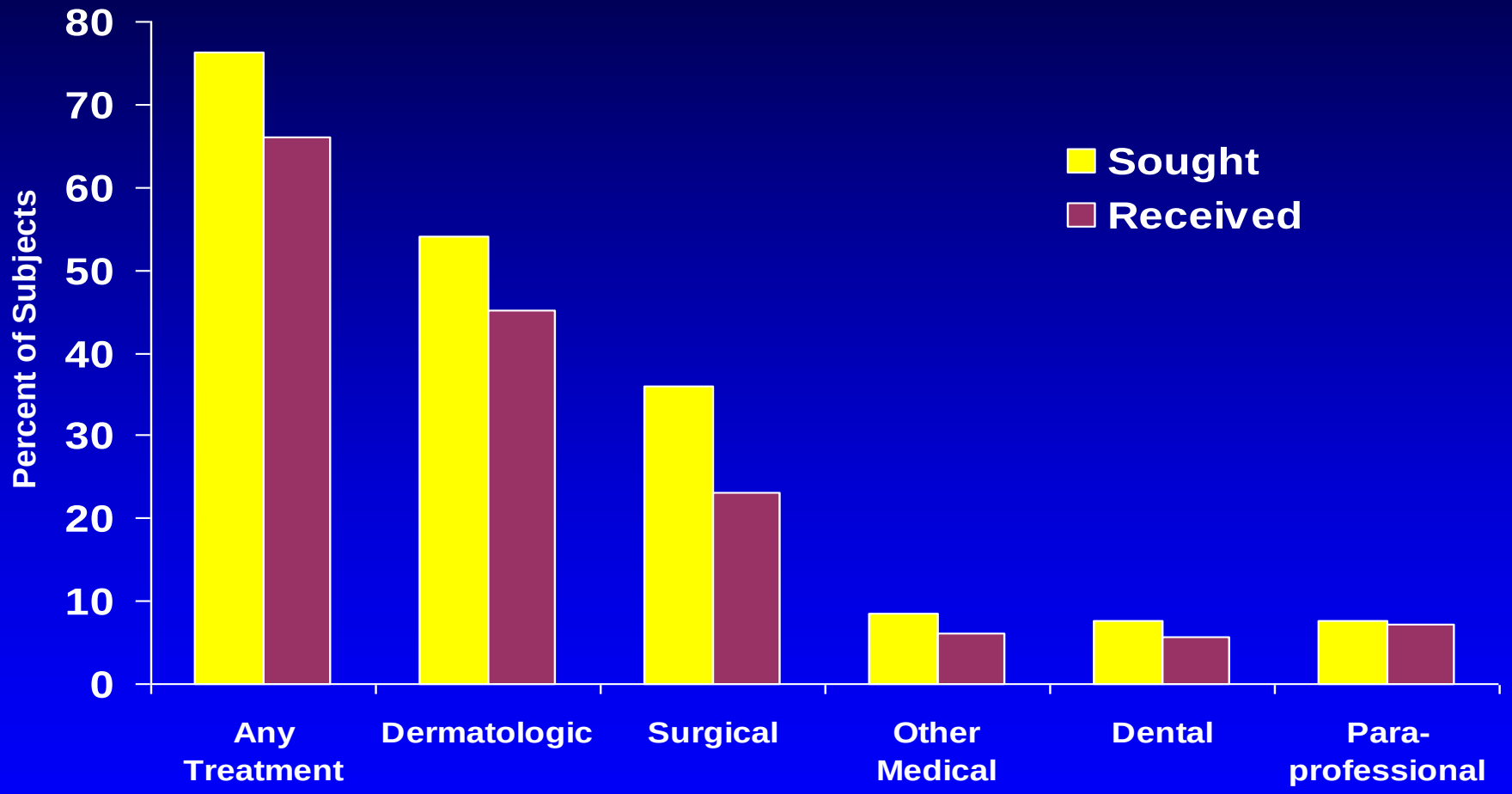
» Not work due to mental illness

» Receive disability payments

Perugi et al, *J Nerv Ment Dis,* 1997; Phillips and Diaz, *J Nerv Ment Dis,* 1997; Phillips et al, *Compr Psychiatry,* 2006

N=58, N=188, N=200

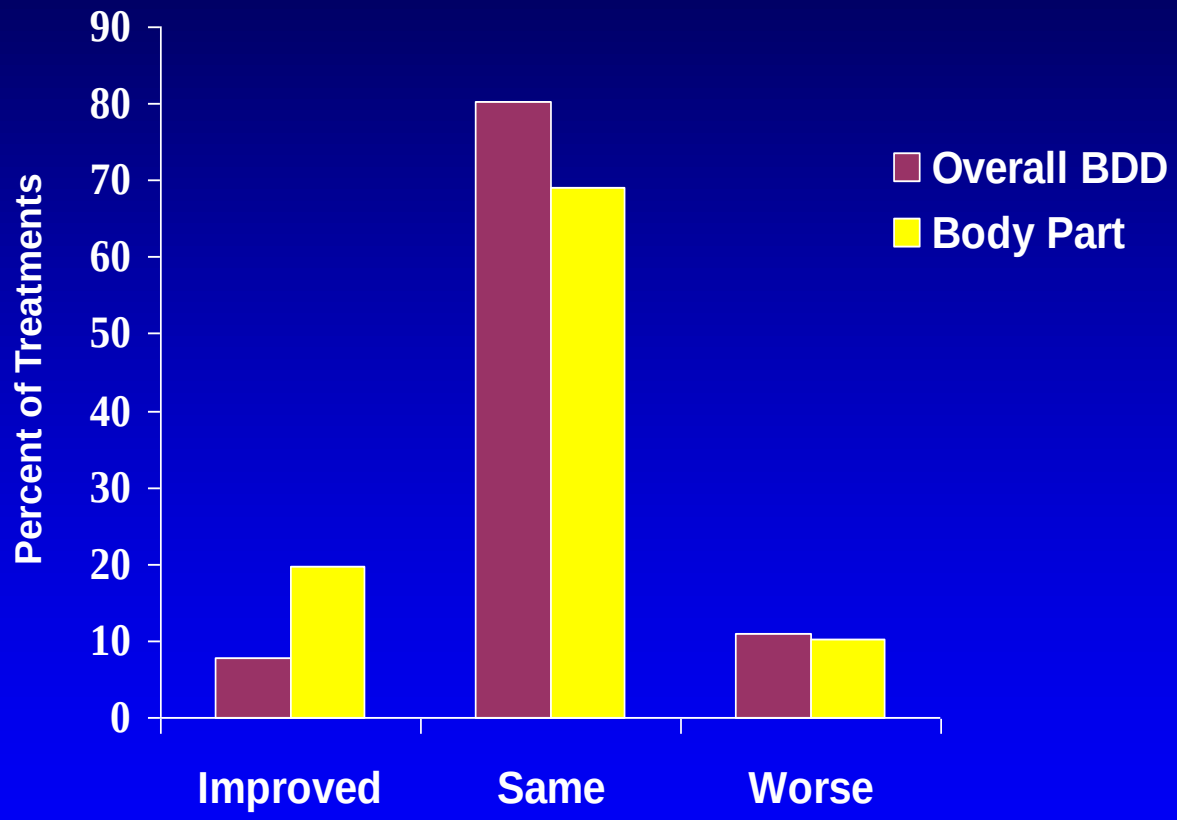
Cosmetic Treatment for BDD



Phillips et al, *Psychosomatics,* 2001; Crerand et al, *Psychosomatics,* 2005

N=450

Outcome of Cosmetic Treatment for BDD



Total number of treatments = 890

N=450

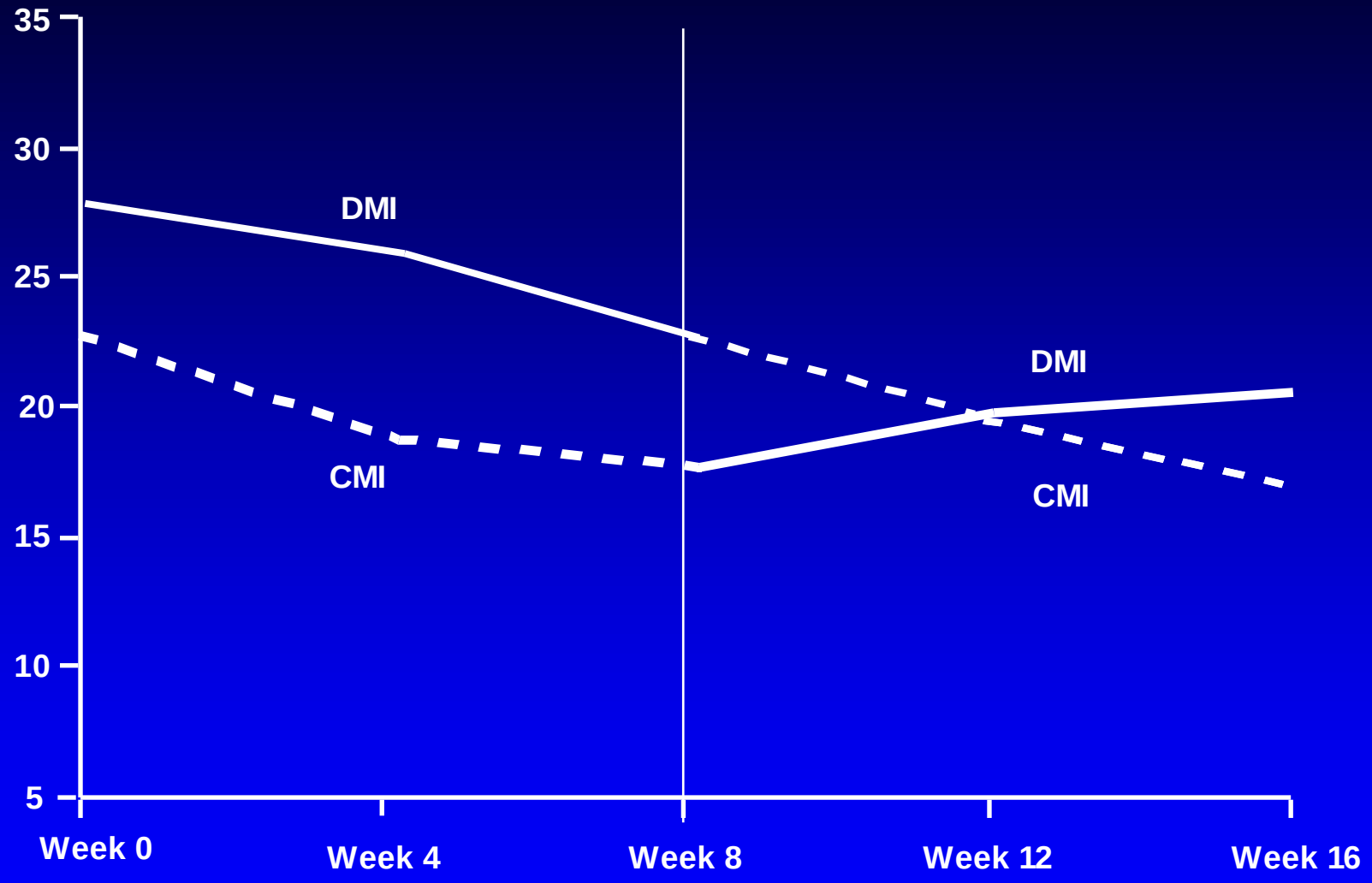
Phillips et al, *Psychosomatics,* 2001; Crerand et al, *Psychosomatics,* 2005

SRIs for BDD

- **Case series:** SRIs appear more effective than other psychotropics (n=5, Hollander et al 1989; n=30, Phillips et al 1993; n=130, Phillips 1996)
- **Open-label trials:**
  - » Fluvoxamine (Luvox): Response in 83% and 63% (n=15, Perugi et al 1996; n=30, Phillips et al 1998)
  - » Citalopram (Celexa): Response in 73% (n=15, Phillips & Najjar 2003)
  - » Escitalopram (Lexapro): Response in 73% (n=15, Phillips 2006)
- **Controlled cross-over trial:** Clomipramine (Anafranil) is more efficacious than desipramine (n=29, Hollander et al 1999)
- **Placebo-controlled trial:** Fluoxetine (Prozac) is more efficacious than placebo (n=67, Phillips et al 2002)

No medication is FDA-approved for the treatment of BDD

Clomipramine vs Desipramine

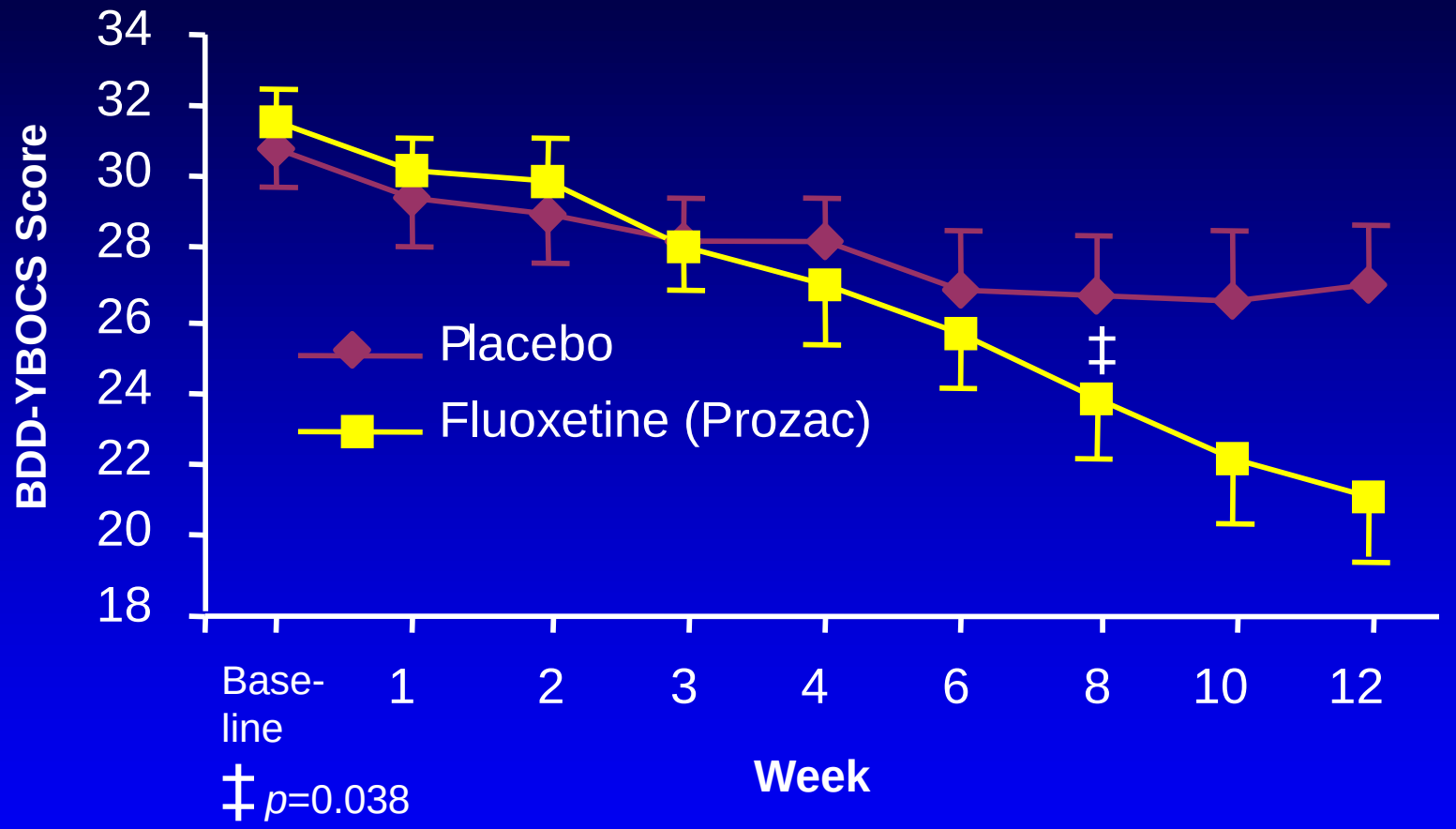


N=29

N=23; F=11.02; df=1,21; p=.003

Hollander et al, *Arch Gen Psychiatry,* 1999

Fluoxetine vs Placebo



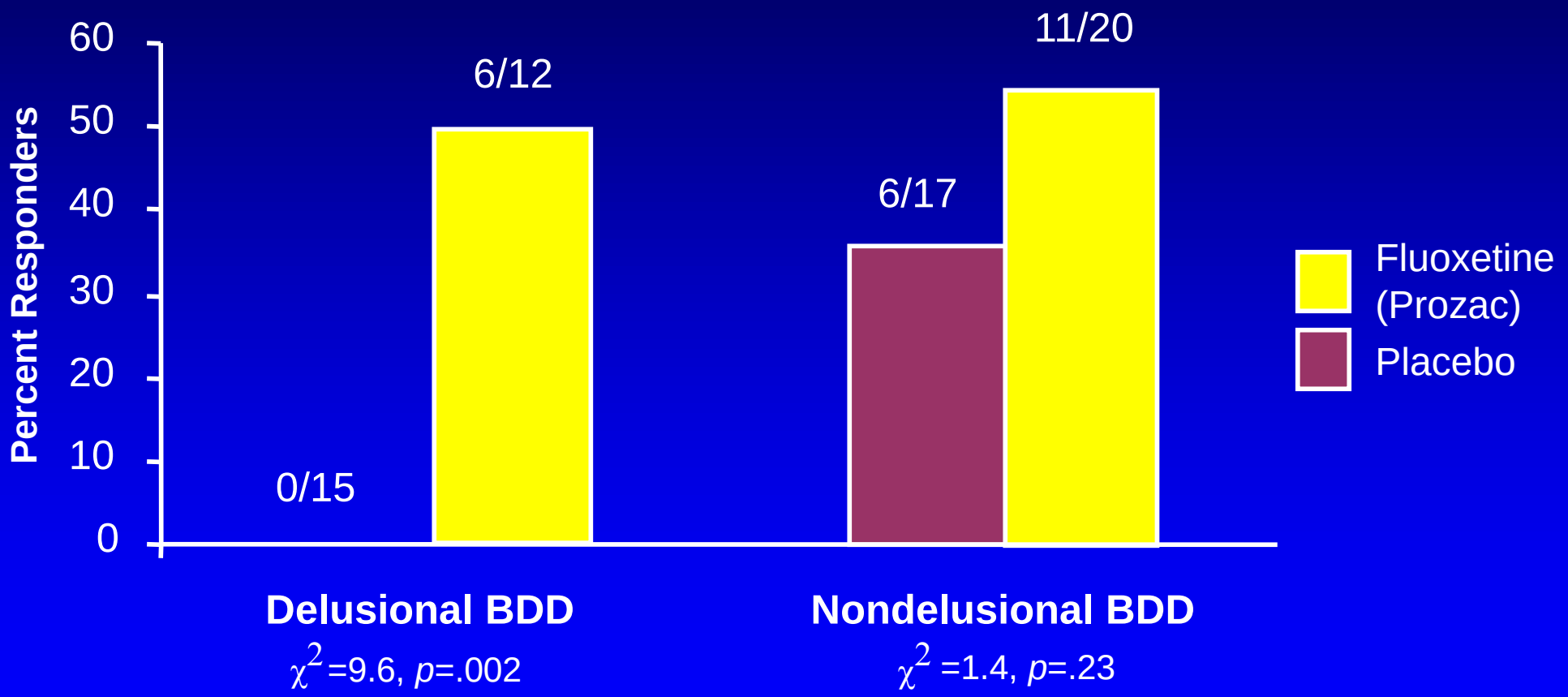
53% responded to fluoxetine vs 18% to placebo

(χ^2 =8.8, *p*=.003; F(1,64)=16.5, *p*<.001)

N=67

Phillips et al, *Arch Gen Psychiatry,* 2002

Response of Delusional vs Nondelusional BDD



N=64

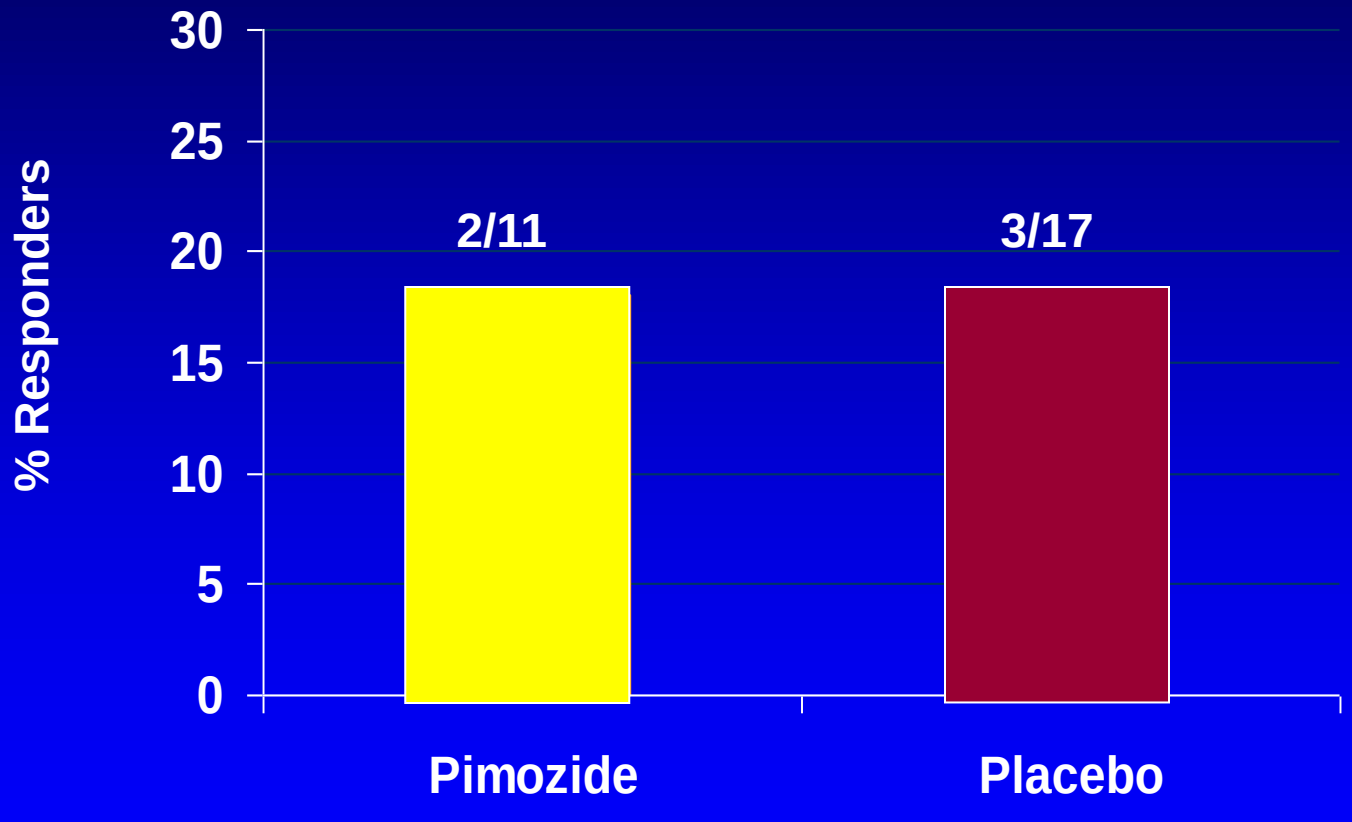
Phillips et al, *Arch Gen Psychiatry,* 2002

Medication Approaches

- Studies support SRIs as a first-line treatment -- for patients with delusional BDD, too; recommended in a National Collaborating Centre for Mental Health (NICE) practice guideline and a Cochrane review of BDD
- No studies have compared SRI doses. Relatively high doses appear often needed.
- Other medications as monotherapy? Positive open-label trials for:
  - » Venlafaxine (Effexor) (n=17)
  - » Levetiracetam (Keppra) (n=17)
- If no response or partial response to an optimal SRI trial after 12-16 weeks → switch SRIs or add another medication to the SRI (augment)

Allen et al, *CNS Spect,* 2008; Ipser et al, *Cochrane Database of Systematic Reviews,* 2009; National Collaborating Centre for Mental Health, 2006; Phillips and Hollander, *Body Image: Int J Res,* 2008; Phillips et al, *J Clin Psychiatry,* 2001; Phillips and Menard, *CNS Spect,* 2009

Pimozide vs Placebo Augmentation of Fluoxetine



N=28

Chi-square=.001, df=1, p=.97

Phillips, *Am J Psychiatry*, 2005

SRI Augmentation

- **Antipsychotics:** Only minimal data on augmentation with antipsychotics, which is largely negative – although clinical experience suggests potential efficacy for atypicals
- **Buspirone:** Small case series support use (average of 50-60 mg/day)
- **Other medications:** Data are extremely limited; some positive outcomes with SSRI augmentation with clomipramine (need to monitor levels), venlafaxine, lithium, stimulants, levetiracetam

Phillips, *Psychopharm Bull,* 1996; Phillips et al, *J Clin Psychiatry,* 2001; Phillips, *Am J Psychiatry,* 2005; Phillips, *Am J Psychiatry,* 2005; Phillips and Menard, *CNS Spect,* 2009

Cognitive-Behavioral Therapy for BDD

- CBT helps patients modify self-defeating thoughts and behaviors – efficacious for many psychiatric disorders, but needs to be modified to specifically target BDD symptoms
- Case series (N=5-17): Positive outcomes with CBT for BDD
- In three studies that compared CBT to a no-treatment waiting list control condition (N=54, N=36, N=19), CBT was more efficacious than no treatment

McKay et al, *Behav Res Ther,* 1997; Neziroglu and Yaryura-Tobias, *Behav Ther,* 1993; Rosen et al, *J Consult Clin Psychol,* 1995; Veale et al, *Behav Res Ther,* 1996; Wilhelm et al, *Behav Res Ther,* 1999, Wilhelm et al, unpublished data

Core CBT Strategies for BDD

- **Psychoeducation and Case Formulation:** Sets the stage for treatment
- **Cognitive Restructuring:** Identify unrealistic negative thoughts about appearance and "cognitive errors" (e.g., mind reading) → develop more accurate and helpful beliefs
- **Exposure:** Gradually face feared and avoided situations (often social); test beliefs by doing behavioral experiments as part of exposure
- **Ritual Prevention:** Stop excessive compulsive behaviors

Core CBT Strategies for BDD *(continued)*

- **Perceptual Retraining:** Do mirror exercises to learn to see one's body non-judgmentally and "holistically" (not focusing on details)
- **Advanced Cognitive Strategies:** Modify deeper-level negative core beliefs (e.g., "I am worthless")
- **Motivational Interviewing:** Many BDD patients (especially those with delusional BDD beliefs) need MI
- **Relapse Prevention:** Prepare for the end of treatment

Optional CBT Approaches

(for patients with relevant symptoms)

- **Habit Reversal:** For compulsive skin picking and hair plucking
- **Weight, Shape, and Muscularity:** For muscle dysmorphia (preoccupation with body build and muscularity) and other weight/body shape concerns
- **Cosmetic Treatment:** For patients receiving or planning cosmetic treatment
- **Emotion Management:** For patients with more severe depression

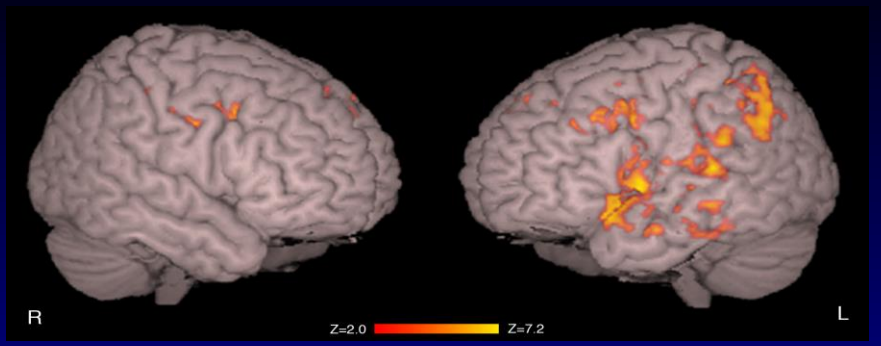
BDD fMRI Study

- Compared brain activation of BDD subjects to healthy controls when visually processing others' faces (N=25)
- Matching task of photos of others' faces that were unaltered, high spatial frequency (high detail), or low spatial frequency (low detail)



Feusner at al, *Arch Gen Psychiatry,* 2007

fMRI while performing matching tasks of face stimuli



Brain activation for low-detail faces relative to controls

- Controls: left hemisphere activity (detail/analytic) only for high-detail faces
- BDD subjects: predominant left hemisphere activity (detail/analytic) for *all* face types, including low-detail faces
- Thus, BDD subjects processed faces in a way that inappropriately extracted details – rather than in a global, “holistic,” and “big picture” way
- BDD subjects: abnormal amygdala activation for low- and high-detail faces

Feusner et al, *Arch Gen Psychiatry,* 2007

Usually, to diagnose BDD you have to ask specifically about BDD symptoms

Diagnosing BDD

- **Appearance concerns**: Are you very worried about your appearance in any way? (*OR:* Are you unhappy with how you look?) *If yes*, Can you tell me about your concern?

- **Preoccupation**: Does this concern preoccupy you? Do you think about it a lot and wish you could think about it less? (*OR:* How much time would you estimate you think about your appearance each day – at least an hour a day?)

- **Distress or impairment**: How much distress does this concern cause you? Does it cause you any problems -- socially, in relationships, or with school or work?

Clues to the Presence of BDD

- Behaviors such as mirror checking, reassurance seeking, skin picking, excessive grooming, tanning, or camouflaging (e.g., with a hat)
- Referential thinking (believing others take special notice)
- Avoidance of activities; being housebound
- Depression, social phobia, OCD, substance abuse/dependence
- Excessive seeking or lack of improvement with cosmetic treatment – e.g., surgical, dermatologic, dental

Summary

- BDD is a relatively common disorder
- Suicidality rates appear very high, and functioning and quality of life are markedly poor
- SRIs and CBT appear to often be efficacious
- Additional research is greatly needed!

Questions

- What class of medications appears efficacious for BDD?

A. MAOIs

B. Tricyclics (excluding clomipramine)

C. SRIs

D. Neuroleptics

Questions

- What class of medications appears efficacious for delusional BDD (i.e., patients with delusional beliefs regarding perceived appearance flaws)?

A. Typical antipsychotics

B. Atypical antipsychotics

C. SRIs

D. Benzodiazepines

Questions

- What type of psychotherapy appears efficacious for BDD?

A. Supportive therapy
B. Exposure/behavioral experiments, response prevention, and cognitive restructuring
C. Psychodynamic psychotherapy
D. Relaxation techniques

Questions

- Cosmetic treatment (e.g., surgery, dermatologic treatment) for BDD appears to be:

  A. Always effective

  B. Usually effective

  C. Rarely effective

Questions

- The following behaviors are symptoms of BDD:

A. Excessive mirror checking
B. Compulsive grooming
C. Skin picking (to remove perceived blemishes)
D. Seeking reassurance about one's appearance
E. All of the above

Answers to Questions

1: C. SRIs

2: C. SRIs

3: B. Exposure/behavioral experiments, response prevention, and cognitive restructuring

4: C. Rarely effective

5: E. All of the above