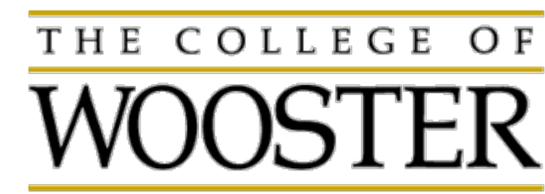


Is Body Dissatisfaction changing across time? A cross-temporal meta-analysis

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Background & Rationale

- Body image is multidimensional, including cognitive-affective, perceptual, and behavioral domains (Cash & Smolak, 2011)
 - Body dissatisfaction (BD) reflects the cognitive-affective domain, and it also is multidimensional:
 - Thinness-oriented Body Dissatisfaction**
 - Muscularity-oriented Body Dissatisfaction**
- BD is an important clinical construct:
 - DSM-5:
 - clinically significant BD is a necessary criterion of anorexia nervosa and bulimia nervosa
 - Treatment:
 - central component of interventions for anorexia, bulimia, and binge-eating disorders (Fairburn, 2008)
 - Prevention:
 - helping individuals without clinically significant BD learn to de-emphasize appearance evaluations (Becker et al., 2015)
- BD is an important risk factor
 - known to increase risk of disordered eating and depression (Smolak & Thompson, 2009), as well as decreased well-being, lower life satisfaction, less optimism, etc. (Albertson et al., 2015)
 - a key 'function' of eating disorders is addressing body dissatisfaction
- Antecedents of BD are multi-faceted
 - Biological factors (including body mass, age of menarche; Bearman et al., 2006)
 - Personality factors (such as perfectionism; Wade & Tiggemann, 2013)
 - Sociocultural factors (influences from media, family, and peers)
- Sociocultural factors change across time:
 - Body ideals shift – women:
 - Miss America contestants became thinner (Garner et al., 1980)
 - Playboy centerfold models became thinner (Garner et al., 1980)
 - Increase in diet articles in popular magazines (Wiseman et al., 1992)
 - Increased muscularity among women portrayed in media (Thompson et al., 2004)
 - Body ideals shift – men:
 - Playgirl models became more muscular (Leit et al., 2001)
 - Action figures became more muscular (Pope et al., 1999)
 - Increase in 'body diversity'?
 - Widespread media campaigns, such as *Dove Campaign for Real Beauty* (Unilever, 2015)
 - Banning of 'ultra-thin' models in several countries (Stampler, 2015)
 - Legislation regarding advertising regulation of products that "encourage the cult of the body" (Law 7/2010, of March 31, General Audiovisual Communication)

Figure 1. Details of Literature Search for Eating Disorders Inventory

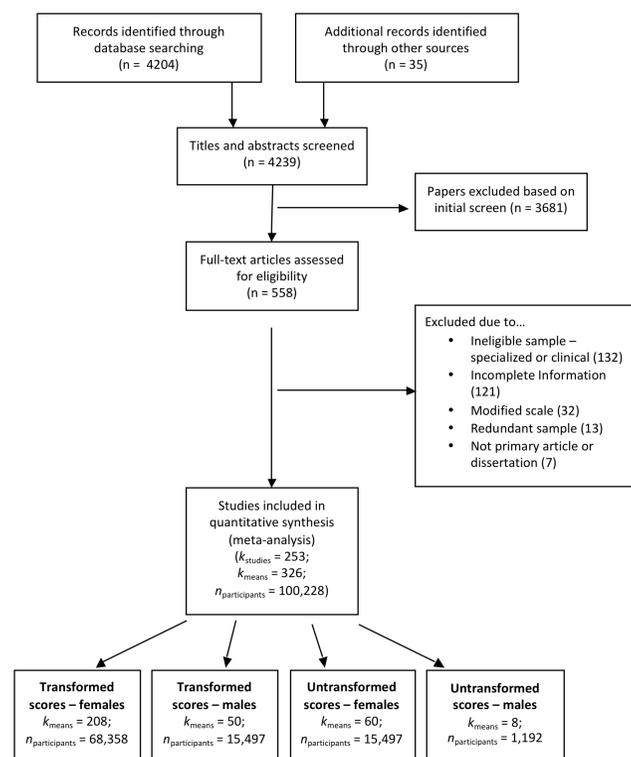


Figure 2. Details of Literature Search for Drive for Muscularity Scale

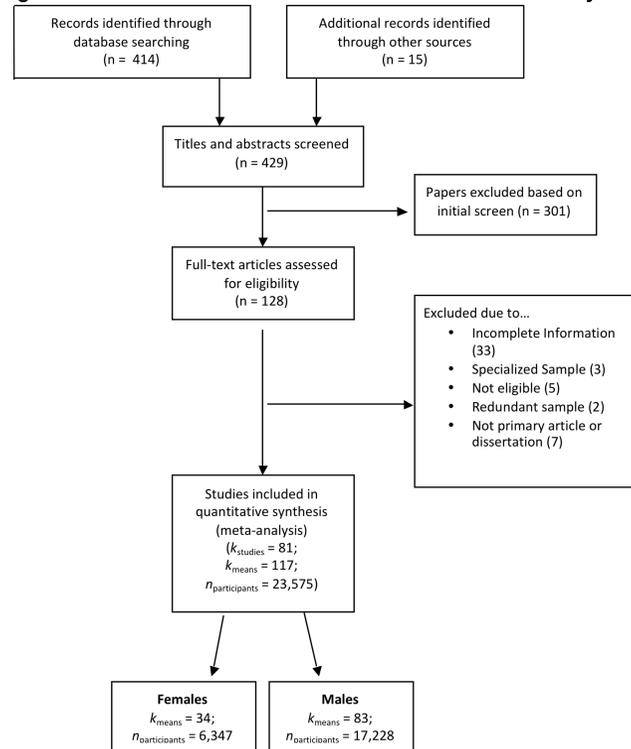


Figure 3. Transformed EDI-BD Scores

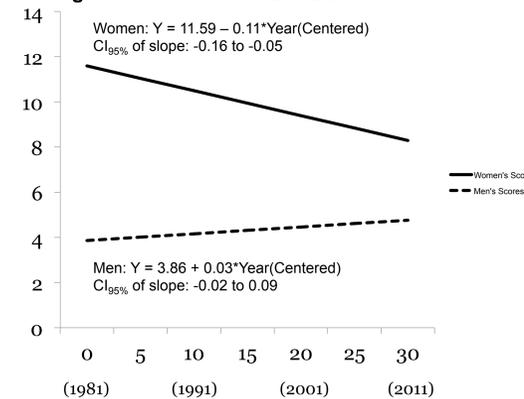


Figure 4. Untransformed EDI-BD Scores

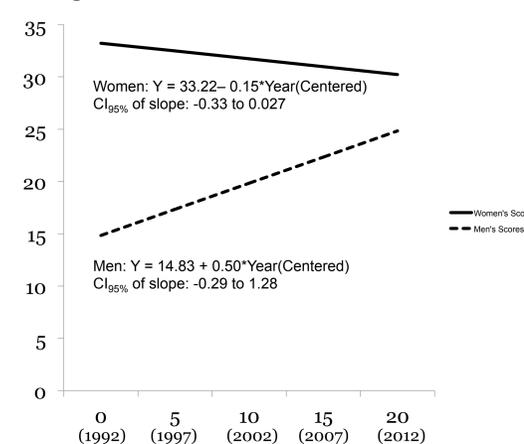
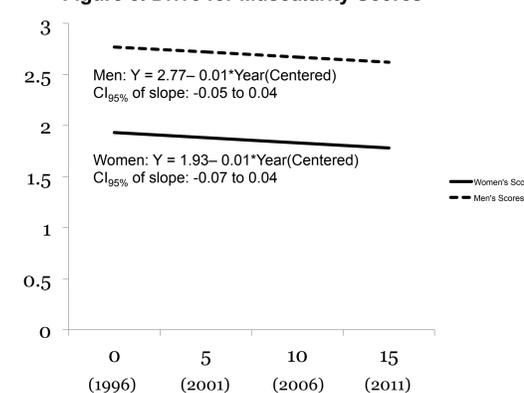


Figure 5. Drive for Muscularity Scores



Research Questions

- Is BD changing across time?
 - ...among women?
 - ...for thinness-oriented BD?
 - ...for muscularity-oriented BD?
 - ...among men?
 - ...for thinness-oriented BD?
 - ...for muscularity-oriented BD?

Methods

- Literature search for 2 measures:
 - Eating Disorders Inventory – Body Dissatisfaction scale
 - as measure of thinness-oriented BD
 - Drive for Muscularity Scale
 - as measure of muscularity-oriented BD
 - See details in Figures 1 & 2
- Thinness-oriented BD assessed via Eating Disorder Inventory-BD scale
 - data available from 31 years, 326 unique samples, $n = 100,228$ participants
- Muscularity-oriented BD assessed via Drive for Muscularity Scale
 - data available from 14 years, 117 unique samples, $n = 23,575$

Analyses

- Cross-temporal meta-analysis (DV is regressed on time)
 - ...conducted using meta-regression in Comprehensive Meta-Analysis-Version 3 (Borenstein et al., n.d.)
- Statistical notes:
 - Effect sizes based on weighted average of within-sample *SDs*
 - We controlled for geographic region, Human Development Index (composite of longevity, education, standard of living), age
 - All models also examined with robust variance estimation methods (Hedges et al., 2010)

Results

- Thinness-oriented BD (see Figures 3 & 4)
 - Transformed slope was significant for women
 - Effect Sizes between genders by time period*
 - 1981: $d = 1.17$
 - 2012: $d = 0.51$
 - Context:
 - Decrease on transformed scores from 11.59 in 1981 to 8.29 in 2011
 - Context: clinical group means are ~ 14.2 and 17.4 for anorexia and bulimia, respectively
 - Muscularity-oriented BD
 - No significant slope, but significant difference
 - Effect size between genders consistent across time*
 - $d = 1.72$

Conclusions, Implications, and Future Research

- Likely not due to biological changes (increased BMIs might suggest slope in different direction)
- Significant change in women's thinness-oriented BD
 - Is this change a result of body awareness/diversity initiatives?
 - Is this change a result of an increase in drive for leanness (Smolak & Murnen, 2008)
- Are changes in other constructs, consistent with theories, changing?
 - ...such as internalization?

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