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1. Link to voiceover narration — The following Google Drive link should link to a 3-minute mp3 audio file. My poster for the Society for Research in Child Development (SRCD) conference included this narrative audio file, which was intended to guide listeners through the poster and highlight additional information. You can download the mp3 file and listen from this link. The audio file is “frozen” and timestamped, so I will not be able to edit it during the review period.

Link to audio file:

<https://drive.google.com/file/d/1HCBpSGDfk5YbKsMOaGnQbuRxB1ZazKAh/view?usp=sharing>

2. My SRCD poster — The original format for this poster was an “iPoster,” and viewers had the ability to click through and enlarge images. For that reason, I have included both a screenshot of my entire poster and screenshots of each section of the poster for ease of viewing.

Meta-Analysis of Gender Differences in Pubertal Timing and Status Relations with Body Image and Self-Esteem

Richburg, A.G., Kelly, D.P., Olson, A., Chung, S., Swerdlow M., & Davis-Kean, P.E.
University of Michigan, Ann Arbor



Introduction

- Early pubertal timing and more advanced pubertal status are thought to be risk factors for psychopathological outcomes, especially for girls [1-2]
- Research on the exact nature of these relations is mixed [3]

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Theoretical Perspectives

Pubertal Timing and Risk for Psychopathology

Hypothesis	Gendered Deviation	Maturational Disparity
At-risk groups	Early-developing girls & late-developing boys	All early developers
Reason	Most extreme ends of the entire peer group; comparisons within and across genders	Disparity between physical and cognitive/emotional development

[4-7]

****Click images twice to enlarge****

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- These data come from a larger meta-analysis on puberty and health outcomes
- Abstracts from both published and unpublished works from 1995-2015 were screened from 6 databases
- Inclusion criteria:
 - in English
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	Girls (N=)		Boys (N=)	
	body image	self-esteem	body image	self-esteem
pubertal timing	7889	3389	778	291
pubertal status	6524	4244	2038	2025

- Mean age (boys): 13.21 years
- Mean age (girls): 13.61 years

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Pubertal timing & body image: early pubertal timing related to worse and better body image for girls and boys, respectively

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Discussion and Limitations

- These effects suggest that shifts in body image and self-esteem may coincide with puberty as adolescents reconcile their biological development with gendered societal attractiveness ideals [8]
- Results seem to support the gendered deviation hypothesis, but more primary research is needed, especially for boys
- This study was limited by the current state of the literature
- Best practices in open science will benefit the field — future research will benefit from more open datasets, preregistered studies, etc.

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- Other aspects of puberty, such as pubertal tempo and synchrony, may also influence well-being [9-10]
- Future research should examine these relations in boys and other understudied groups (e.g., low-SES adolescents, LGBTQ+ youth, racial and ethnic minorities)

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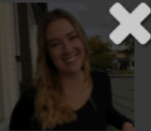
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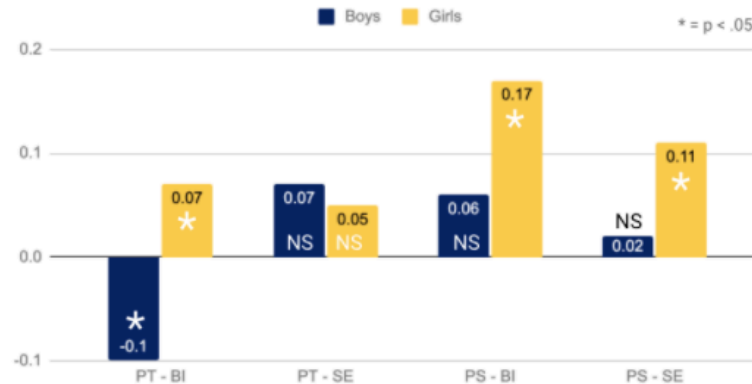
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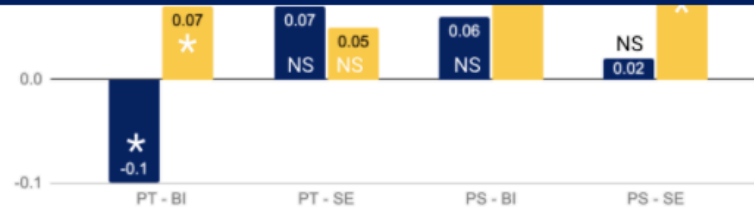
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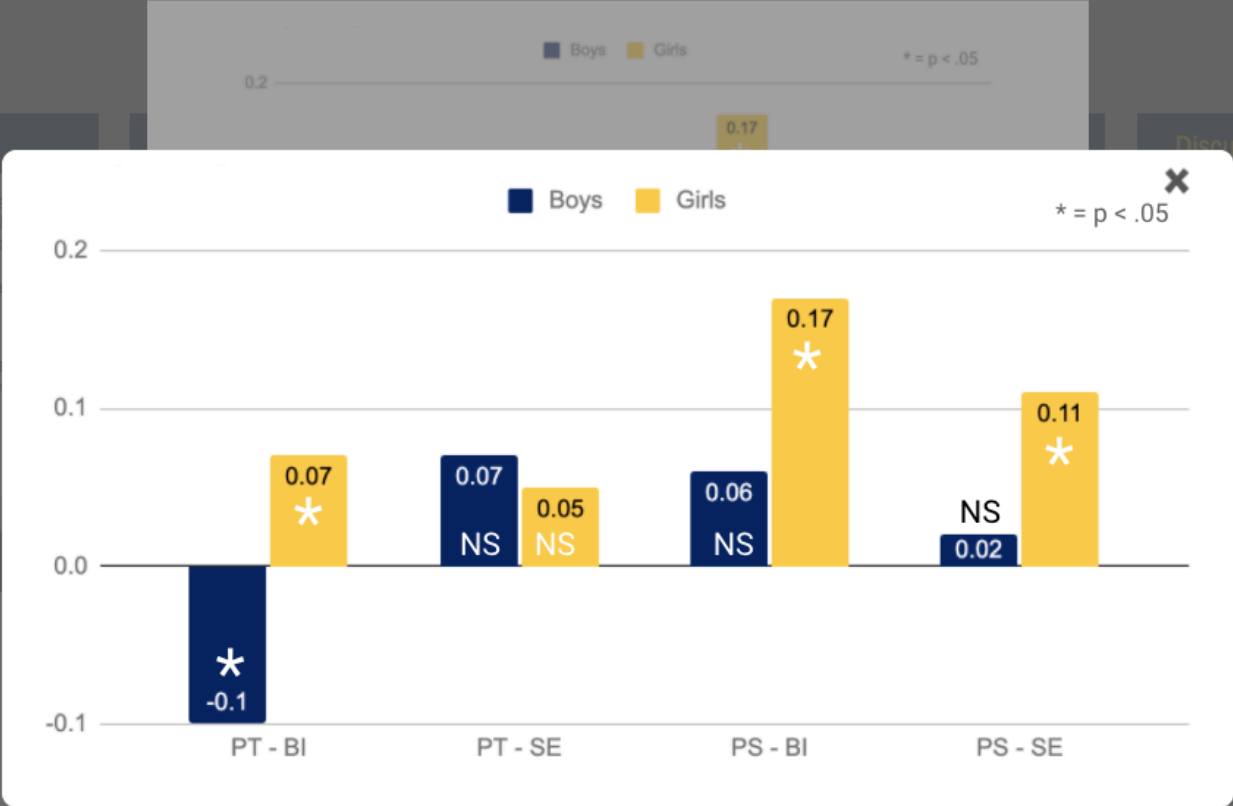
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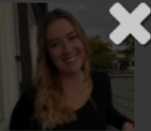
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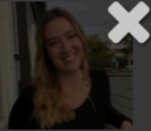
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ABSTRACT

Poor body image and low self-esteem can have implications for adverse psychopathological outcomes throughout the lifespan (O’Dea, 2012). Existing research shows that shifts in body image and self-esteem coincide with puberty as adolescents reconcile their biological development with societal attractiveness ideals for each gender (Stice, 2003), although research on the exact nature of these relations is mixed (Duncan, Ritter, Dornbusch, Gross, & Carlsmith, 1985; Williams & Currie, 2000). The maturational disparity hypothesis suggests that both boys and girls who experience earlier puberty will experience poorer outcomes, while the gendered deviation hypothesis suggests that it is early-maturing girls and late-maturing boys at risk. This study attempts to address that gap in the literature by using meta-analysis to determine the potential for gender differences in the directionality and strength of the relations between pubertal timing, pubertal status, body image, and self-esteem.

This data comes from a completed larger meta-analysis on puberty and health outcomes. In the overall study, abstracts from both published and unpublished works between 1995 and 2015 were screened from 6 databases, including PsycInfo and ERIC. For inclusion in this analysis, studies needed to be in English, include usable original data on human participants, include a measure of puberty, include a measure of either self-esteem or body image, and have separate effect sizes by gender.

Concerning pubertal timing, 26 correlations (expressed as Pearson’s *r*) between pubertal timing and body image (*n*= 8667, 9.0% male) were found, and significant overall effects of +.07 (CIs: +.04, +.10) for females and -.10 (CIs: -.17, -.03) for males (*p*’s < .01) were calculated. These suggest that early pubertal timing is related to worse and better body image outcomes for females and males, respectively. In contrast, for the 19 correlations between pubertal timing and self-esteem (*n*= 3681, 7.9% male) found, the overall effects were non-significant for both genders (*p*’s > .05).

Concerning pubertal status, 29 correlations between pubertal status and body image (*n*= 8562, 23.80% male) and 21 effect sizes between pubertal status and self-esteem (*n*= 6269, 32.30% male) were found. For females, a significant overall effect of +.17 (CIs: +.09, +.24) was found for the relation between pubertal status and body image and +.11 (CIs: +.07, +.15) for the relation between pubertal status and self-esteem (*p*’s < .01). These suggest that females with more advanced pubertal status have lower body-image and lower self-esteem. There were no significant overall effects between pubertal status and either body image or self-esteem for males (*p*’s > .05).

These results suggest that early pubertal timing and more advanced pubertal status relate to negative outcomes for girls and advocate for more research on the social experiences of adolescent girls. The lack of consistent results for boys suggests that the effects of puberty on body image and self-esteem for boys may be less linear, but more research is required. In the future, both in meta-analyses and original studies, these relations should be further examined for groups that are underrepresented in puberty research, such as low-SES adolescents, racial and ethnic minorities and LGBTQ+ adolescents.

- Mean age (boys): 13.21 years
- Mean age (girls): 13.61 years

- Lack of consistent results for boys, suggesting that the effects of puberty on body image and self-esteem for boys may be less linear

Discussion and Limitations

- These effects suggest that shifts in body image and self-esteem may coincide with puberty as adolescents reconcile their biological development with gendered societal attractiveness ideals [8]
- Results seem to support the gendered deviation hypothesis, but more primary research is needed, especially for boys
- This study was limited by the current state of the literature
- Best practices in open science will benefit the field — future research will benefit from more open datasets, preregistered studies, etc.

Future Directions

- Other aspects of puberty, such as pubertal tempo and synchrony, may also influence well-being [9-10]
- Future research should examine these relations in boys and other understudied groups (e.g., low-SES adolescents, LGBTQ+ youth, racial and ethnic minorities)



Meta-Analysis of Gender Differences in Pubertal Timing and Status Relations with Body Image and Self-Esteem

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Introduction

- Early pubertal timing and more advanced pubertal status are thought to be risk factors for psychopathological outcomes, especially for girls [1-2]
- Research on the exact nature of these relations is mixed [3]

Study Aim: To synthesize existing literature on gender differences in relations between pubertal timing and status with body image and self-esteem

Theoretical Perspectives

Pubertal Timing and Risk for Psychopathology

Hypothesis	Gendered Deviation	Maturational Disparity
At-risk groups	Early-developing girls & late-developing boys	All early developers
Reason	Most extreme ends of the entire peer group; comparisons within and across genders	Disparity between physical and cognitive/emotional development

[4-7]

****Click images twice to enlarge****

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