



## RELEVANT RESEARCH

The Butterfly Body Bright program has been informed by a number of Australian and International studies. Summarised here are the key statistics that have informed the six Body Bright Themes: BRAVE, RESILIENT, INCLUSIVE, GRATEFUL, HAPPY and THOUGHTFUL.

# BRAVE RESEARCH

Research on appearance-related teasing indicates that...

- Up to 58% of primary school-age children have reported appearance-related teasing from peers.<sup>1</sup>
- In a recent survey conducted by Butterfly, 65% of adult respondents self-reported that appearance-related teasing contributed to **their own body image/eating concerns during primary school. 38% reported appearance-related bullying (i.e., repeated victimisation) as a contributing factor.**
- Appearance-related teasing has been associated with disordered eating attitudes and behaviours in children as young as 8-12 years old.<sup>2</sup>
- Appearance-related teasing in adolescence has shown to increase the likelihood of experiencing body dissatisfaction, eating for comfort, and unhealthy weight control behaviours 15 years later (when men and women entered their 30's), demonstrating the potential long-term impact of teasing.<sup>3</sup>
- Although all children are at risk of negative appearance comments, children of higher weight and body size, or with a visible difference, are more likely to be victims of appearance-related teasing, that may be from peers, family, or educators.<sup>4</sup>
- There are a number of factors that influence how appearance-related teasing may contribute to body dissatisfaction in a child, including self-esteem, anxiety, fear of weight gain, existing body concerns, and the degree to which they internalise societal appearance ideals.<sup>5</sup>
- Primary school programs aiming to reduce appearance-relating teasing have shown to reduce such teasing by around 10%.<sup>6</sup>

## References:

<sup>1</sup> Damiano, S.R., et al (2018). <https://doi.org/10.1080/10640266.2018.1453630>

<sup>2</sup> Cote, M., et al. (2020). <https://doi.org/10.32872/cpe.v2i1.2689>

<sup>3</sup> Puhl, R. M., et al. (2017). <https://pubmed.ncbi.nlm.nih.gov/28450124/>

<sup>4</sup> Valois, D.D., et al. (2019). <https://doi.org/10.1016/j.bodyim.2019.02.009>

<sup>5</sup> Zimmer-Gembeck, M.J., et al. (2018). <https://doi.org/10.1017/S0954579417000657>

<sup>6</sup> Haines, J., et al. (2006). <https://doi.org/10.1093/her/cyl123>

# RESILIENT RESEARCH

Research on the influence of media indicates that...

- Appearance of characters in children's media are often presented in stereotypical ways. For example, female lead characters are often thin, attractive, and/or kind, and male lead characters are often strong, heroic, attractive, and/or desired by the lead female.<sup>1</sup> These can influence a child's attitudes about bodies.
- Some evidence shows that media viewing is related to greater weight stigmatising attitudes (i.e., thinking positively about thinner bodies and negatively about larger bodies).<sup>2</sup>
- Greater exposure to general and appearance-focused media (e.g., music videos or magazines) is related to young girls reporting greater interest in dieting and intention to diet.<sup>3, 4</sup>
- The more time adolescents spend on social media, particularly using photo-based social media that involves taking and editing selfies, the greater their risk of developing body dissatisfaction and eating disorders<sup>5</sup>.
- Including media literacy content in school-based programs can be effective in improving body image and eating behaviours in children.<sup>6, 7</sup>

## References:

<sup>1</sup> Herbozo et al. (2004). <https://doi.org/10.1080/10640260490267742>

<sup>2</sup> Rodgers et al. (2017). <http://dx.doi.org/10.1037/dev0000407>

<sup>3</sup> Damiano et al. (2015). <https://doi.org/10.1002/eat.22432>

<sup>4</sup> Dohnt et al. (2006). <https://doi.org/10.1007/s10964-005-9020-7>

<sup>5</sup> Longeran et al. (2020). <https://doi.org/10.1002/eat.23256>

<sup>6</sup> Diedrichs et al. (2015). <https://doi.org/10.1016/j.brat.2015.09.004>

<sup>7</sup> McLean et al. (2016). <http://dx.doi.org/10.1016/j.bodyim.2016.08.002>

# INCLUSIVE RESEARCH

Research on weight stigma indicates that...

- Weight stigma starts developing early in childhood, with children as young as 3 years old attributing negative qualities (such as 'lazy' and 'mean') to images of children with larger bodies and attributing positive qualities (such as 'nice' and 'clever') to images of children with thinner bodies.<sup>1, 2,3</sup>
- Children between the ages of 5 and 8 have been shown to endorse the importance of being thin.<sup>4</sup>
- At age 5, 90% of boys and 92% of girls have indicated a preference for not inviting children in a larger body to their birthday party, and perceiving thin-to-average sized children as 'good'.<sup>5</sup>
- The more children are surrounded by negative weight talk, the more likely they are to internalise negative weight-based stereotypes to judge themselves, which also leads to self-devaluation. <sup>e.g., 6</sup>
- The most common reason individuals in larger bodies are often at increased risk of experiencing body dissatisfaction is the way they are mistreated about their body size.
- From one global study of nearly 14,000 adults enrolled in a well-known weight loss program, between 76-88% reported experiencing weight shaming from a parent, sibling, or other family member. 72-81% reported being teased/bullied by classmates at school. **For up to 30% of people, their first experience of weight stigma happened before the age of 10.**<sup>7</sup>
- In girls as young as 5, favouring thinner bodies has been related to reporting an intention to diet to avoid getting fat.<sup>8</sup>

## References:

<sup>1</sup> Musher-Eizenman et al. (2003). <https://psycnet.apa.org/record/2003-05805-009>

<sup>2</sup> Damiano et al. (2015). <https://jeatdisord.biomedcentral.com/articles/10.1186/s40337-015-0048-0>

<sup>3</sup> Spiel et al. (2012). <https://doi.org/10.1016/j.bodyim.2012.07.006>

<sup>4</sup> Dittmar et al. (2006). <https://doi.org/10.1037/0012-1649.42.2.283>

<sup>5</sup> The Children's Body Image Development Study, EMBodIED Research, La Trobe University

<sup>6</sup> Rancano et al. (2021). [https://doi.org/10.1093/cdn/nzab055\\_051](https://doi.org/10.1093/cdn/nzab055_051)

<sup>7</sup> Puhl et al. (2021). <https://www.nature.com/articles/s41366-021-00860-z>

<sup>8</sup> Damiano et al. (2015). <https://pubmed.ncbi.nlm.nih.gov/26283500/>

# GRATEFUL RESEARCH

Research on body image in children indicates that...

- Approximately 50% of pre-adolescent girls report body dissatisfaction<sup>1</sup>, with age 6 thought to be an important age for the onset of body dissatisfaction in girls.<sup>2</sup>
- Primary-school age boys are already reporting a desire for a more muscular body.<sup>3,4</sup>
- In a recent survey conducted by Butterfly, 93% of adult respondents who reported developing body image concerns during their primary school years stated that their concerns got worse as they entered adolescence. Nearly 30% of survey respondents were diagnosed with an eating disorder.
- Body dissatisfaction may not change during childhood (i.e., those who report greater dissatisfaction continue to report dissatisfaction, and those who report greater satisfaction continue to report satisfaction)<sup>5,6</sup>, but appearance anxieties increase<sup>7</sup>. These findings highlight the importance of setting a positive foundation for body satisfaction.
- Greater body concerns at the ages of 5 and 7 have been shown to predict greater dietary restriction by age 9 in Australian girls<sup>8</sup>.
- There are a number of factors that influence a person's body image, including physical factors (e.g., body size/weight), psychological factors (e.g., self-esteem, perfectionism, anxiety), and sociocultural factors (i.e., peers (including appearance-based teasing), family, media, appearance stereotypes).
- Body image programs in schools have shown to improve body attitudes, however impact is often short in duration<sup>9</sup>, which emphasises the need for schools to commit to ongoing and whole school approaches to promoting positive body image.

## References:

<sup>1</sup> Paxton & Damiano (2017). <https://pubmed.ncbi.nlm.nih.gov/28215287/>

<sup>2</sup> Dohnt & Tiggemann (2006). <https://psycnet.apa.org/record/2006-09880-001>

<sup>3</sup> McLean et al., (2018). <https://doi.org/10.1016/j.bodyim.2018.07.003>

<sup>4</sup> Tatangelo & Ricciardelli (2013). <http://dx.doi.org/10.1016/j.bodyim.2013.07.006>

<sup>5</sup> Damiano et al., (2019). <https://link.springer.com/article/10.1186/s40337-019-0272-0>

<sup>6</sup> Lacroix et al., (2020). <https://pubmed.ncbi.nlm.nih.gov/32928315/>

<sup>7</sup> Zimmer-Gembeck et al., (2017). <https://pubmed.ncbi.nlm.nih.gov/28516825/>

<sup>8</sup> Davison et al., (2003). <https://psycnet.apa.org/record/2003-03502-014>

<sup>9</sup> Kusina & Exline (2019). <https://doi.org/10.1007/s40894-019-00121-1>

# HAPPY RESEARCH

Research on physical activity indicates that...

- Exercising for appearance-related reasons (e.g., weight control) has been associated with higher levels of **body dissatisfaction**. Exercising for functionality-related reasons (e.g., health) has been associated with higher levels of **body satisfaction**.<sup>1, 2, 3</sup>
- Girls are more likely to withdraw from participating in competitive sports as they get older, often as a result of feeling self-conscious and not feeling good about their body.<sup>4</sup>
- Boys who subscribe to the muscular appearance ideal are at increased risk of engaging in potentially dangerous muscle-building activities, and there is some evidence of young boys reporting an intention to engage in muscle-building activities.<sup>5</sup>
- A recent Butterfly Foundation survey found that 33% of adult respondents (who developed body image concerns during primary school) reported engaging in excessive exercise in their primary school years. Engagement in excessive exercise was most prevalent between the ages of 10 and 12 years and increased greatly once the respondents reached adolescence.
- Focusing on body functionality has been related to greater body satisfaction, body appreciation, and lower self-objectification (i.e., seeing one's body as an object).<sup>6</sup>
- Experts agree that children of all weights, shapes, and sizes should be encouraged to engage in physical activity that is non-competitive, non-weight-loss focused, fun, and safe, as this will contribute to a more positive body image.<sup>7</sup>

## References:

<sup>1</sup> Goncalves & Gomes (2012). <https://doi.org/10.1016/j.eatbeh.2011.11.011>

<sup>2</sup> Hubbard et al. (1998) [https://doi.org/10.1002/\(SICI\)1099-0968\(199812\)6:4<255::AID-ERV262>3.0.CO;2-G](https://doi.org/10.1002/(SICI)1099-0968(199812)6:4<255::AID-ERV262>3.0.CO;2-G)

<sup>3</sup> DiBartolo et al. (2007). <https://doi.org/10.1123/jcsp.1.2.93>

<sup>4</sup> Vani et al. (2017). <https://www.scapps.org/jems/index.php/1/article/view/1636>

<sup>5</sup> McLean et al. (2018). <https://doi.org/10.1016/j.bodyim.2018.07.003>

<sup>6</sup> Alleva & Tylka (2021). <https://doi.org/10.1016/j.bodyim.2020.11.006>

<sup>7</sup> Butterfly Body Bright Policy Strategy study

# THOUGHTFUL RESEARCH

Research on eating behaviours indicates that...

- A third of 5-year-old girls have reported a desire to engage in dieting behaviours<sup>1,2</sup>, which has been related to how important they think being thin is and their level of weight stigma.
- Greater body concerns for girls at ages 5 and 7 have been shown to predict dieting by age 9<sup>3</sup>.
- For boys, dieting at age 7 has been shown to predict eating disorder symptoms at age 12<sup>4</sup>.
- Children of higher weight who experience body dissatisfaction have been found to be at a greater risk of disordered eating<sup>5</sup>.
- In a recent survey conducted by Butterfly, 22% of adult respondents self-reported that they started dieting at age 10.
- Adults who make food choices for health reasons report better dietary quality, intuitive eating, higher levels of body appreciation and self-compassion compared with those who make choices based on weight<sup>6</sup>. This finding emphasises the importance of focusing on health rather than focusing on weight for children and adults.

## References:

<sup>1</sup> Damiano et al. (2015). <https://doi.org/10.1002/eat.22432>

<sup>2</sup> Carper et al. (2000). <https://doi.org/10.1006/appe.2000.0343>

<sup>3</sup> Davison et al. (2003). <https://doi.org/10.1002/eat.10142>

<sup>4</sup> Evans et al. (2017). <http://dx.doi.org/10.1016/j.appet.2016.09.005>

<sup>5</sup> Lewis-Smith et al. (2020). <https://doi.org/10.1007/s10964-020-01291-1>

<sup>6</sup> Willer (2021). [https://eprints.qut.edu.au/211444/1/Fiona\\_Willer\\_Thesis.pdf](https://eprints.qut.edu.au/211444/1/Fiona_Willer_Thesis.pdf)