



Title: Evaluating the effectiveness of the Body Project as a classroom-based positive body image intervention in Irish post-primary schools.

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Abstract

Background: The Body Project is a cognitive dissonance-based eating disorder prevention programme developed by Stice et al. (2006).

Aims: The primary objective of this study was to evaluate the effectiveness of the Body Project as a universal, whole-class, positive body image intervention in co-educational Irish post-primary schools.

Sample: Two Transition Year class groups ($N=34$) participated in this study. This comprised $n=18$ males, $n=15$ females, and $n=1$ participant who did not disclose their gender.

Methods: One class group ($n=17$) received the 4-week Body Project intervention adapted for universal, whole-class, mixed-gender delivery. The other class group ($n=17$) were waitlisted for intervention. Participants completed questionnaires at baseline and post-intervention to measure changes in appearance ideal internalisation and body appreciation. Additionally, the participants in the intervention group rated their enjoyment of the programme using a 5-point Likert scale.

Results: Findings indicate that the Body Project did not effectively reduce appearance ideal internalisation ($p > .05$) from baseline to post-test and the Body Project did not effectively increase body appreciation ($p > .05$) from baseline to post-test. Participants enjoyed the intervention ($M = 4.12$, $SD = 6.00$).

Conclusions: This research contributes to the literature as it is an independent study evaluating the effectiveness of the Body Project. It is the first to explore the effectiveness of the Body Project as a whole-class, universal, mixed-gender intervention, and the first to evaluate the Body Project in the Irish cultural context. Findings indicate that the Body Project is not effective as a universal, whole-class, positive body image intervention in co-educational Irish post-primary schools. Implications for the field of Educational and Child Psychology are discussed with reference to policy, practice, and future research directions.

Declaration

I hereby declare that this thesis is entirely my own work and has not been submitted for any other awards at any academic establishment. Where use has been made of the work of other people, it has been fully acknowledged and referenced.

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Dedication

This thesis is dedicated to the loving memory of my grandad Noel McCarthy, who passed away in February 2024. His boundless encouragement and his delight in my achievements fuelled my motivation during my doctoral journey. The genuine compassion and empathy he demonstrated in his counselling work with marginalised people will continue to inspire me throughout my career as an Educational and Child Psychologist.

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Abbreviations

AN Anorexia Nervosa

APA American Psychiatric Association

ARFID Avoidant/ Restrictive Food Intake Disorder

BED Binge Eating Disorder

BN Bulimia Nervosa

CAMHS Child and Adolescent Mental Health Service

COS Continuum of Support

DES Department of Education and Skills

DCYA Department of Children and Youth Affairs

DSM Diagnostic Statistical Manual

DTE Developmental Theory of Embodiment

HSE Health Service Executive

LCPE Leaving Certificate Physical Education

MIREC Mary Immaculate College Research Ethics Committee

NCCA National Council for Curriculum and Assessment

NCPED National Clinical Programme for Eating Disorders

NCSE National Council for Special Education

NEPS National Educational Psychological Service

NIMH National Institute of Mental Health

SGM Sexual and Gender Minority

SPHE Social Personal Health Education

WoE Weight of Evidence

1 Introduction

1.1 Research Area

The Fifth Edition of the Diagnostic Statistics Manual (DSM-5-TR) defines eating and feeding disorders as ‘a persistent disturbance of eating or eating-related behaviour that results in the altered consumption or absorption of food and that significantly impairs physical health or psychosocial functioning’ (APA, 2022, p.329). Eating disorders pose a considerable risk of mortality (Smink et al., 2012).

Research has consistently shown that body dissatisfaction is a significant predictor of eating disorders (McLean & Paxton, 2019; Laporta-Herrero, 2018; Shagar et al., 2017; Ferreiro et al., 2014). The term ‘Body Image’ was first coined by Schindler (1935) to describe an individual’s mental representation of their body. More recently, Cash (2004) has defined body image as a complex psychological experience of embodying a body that comprises self-perceptions, attitudes, thoughts, feelings, and behaviours. Historically, body image was researched through the lens of psychodynamic theory. Fisher (1970) viewed the body as a boundary between the self and the world, using projective techniques to investigate the permeability of the body image boundary. Shontz (1990) shifted research in the field of body image to experimental psychology, focusing more on physical aspects of the body. In the early 2000s, research in the field of body image centred primarily on body dissatisfaction and weight bias (Paxton & Damiano, 2017; Cash & Smolak, 2011). The construct of positive body image is relatively new. Tylka and Wood-Barcalow (2015b) argue that positive body image is a unique construct, separate to negative body image. Positive body image is considered to be a protective factor against eating disorder development (Levine & Smolak, 2016). In the context of eating disorders, protective factors can be understood as the factors that interrupt the processes through which risk factors lead to disordered eating (Smolak, 2012).

There are many approaches to eating disorder prevention (Alleva et al., 2015; Kusina et al., 2019; Kurz et al., 2022). Most of the research to date in the field of eating disorder prevention programmes has focused on the reduction of risk factors (Le et al., 2017; Loucas et al., 2014; Melioli et al., 2016; Watson et al., 2016). However, it has been argued that targeting the promotion of protective factors, such as positive body image, is crucial (Kenny et al., 2018; Ciao et al., 2018). My interest in the field of body image was first sparked when I volunteered with the Samaritans as a Peer Listener in the University of Limerick during my undergraduate degree. I was struck by how many young people were experiencing body image concerns that were impacting on their wellbeing. When completing my Masters in Applied Psychology in Mental Health in University College Cork, I had the opportunity to develop a deeper understanding of disordered eating, which fuelled my interest in this research area. As a Trainee Educational and Child Psychologist, my interest in this field has continued to grow through my work with young people. In 2021, I participated in the 4-week Body Project programme, which was being run by the Mary Immaculate College, Limerick Counselling Service. Participating in the intervention programme was both enjoyable and beneficial to my own body image. Following the intervention completion, I had the opportunity to train as a facilitator of the programme and became inspired to further research the programme in Ireland.

1.2 Context

The estimated lifetime prevalence of eating disorders in Ireland is approximately 4% (NIMH, 2016). Most recent figures suggest that eating disorders account for 22% of child and adolescent psychiatric admissions (Health Research Board, 2022). Therefore, there is an evident need for eating disorder prevention programmes for young people in Ireland.

Schools may be an appropriate setting for the delivery of intervention programmes (Guest et al., 2022; Kurz et al., 2022; Kusina & Exline, 2019). Irish post-primary schools

have adopted a three-tiered model of support to respond to students needs across a range of dimensions including academic, social, emotional, behavioural, and wellbeing. This framework is known as the Continuum of Support (National Educational Psychological Service, 2010). This framework emphasises the importance of implementing holistic universal approaches with a focus on prevention and early identification of students' social, emotional, behavioural, and learning needs. In addition, one of the key aims of the Wellbeing Policy Statement and Framework for Practice (Department of Education, 2018, p.20) is that 'All schools and centres for education will provide evidence-informed approaches and support, appropriate to need, to enhance the wellbeing of all.' Moreover, the implementation of a positive body image intervention in Irish post-primary schools would align with the senior cycle curriculum, particularly the Social Personal Health Education (SPHE) curriculum and the Leaving Certificate Physical Education (LCPE) curriculum. The senior cycle follows the junior cycle. It is a 3-year programme for students aged 15-18 years, that culminates in Leaving Certificate state examinations. As such, an evidence-based positive body image programme merits exploration in the Irish post-primary school context.

1.3 Overview of Thesis Structure

This thesis is structured in line with the Mary Immaculate College Professional Doctorate in Educational and Child Psychology research guidelines. It comprises a Review Paper, an Empirical Paper, and a Critical Review and Impact Statement.

The Review Paper will provide a broad review of the literature in the fields of eating disorder prevention and body image. This will be followed by a systematic review of the evidence base for the Body Project programme (Stice et al., 2006) to-date, which will highlight the gaps in the literature and signal directions for future research. Studies included in the review will be critiqued both conceptually and methodologically. This study is contextualised within the field of positive body image. The value of school-based universal

positive body image interventions can be understood within the framework of the Developmental Theory of Embodiment (Piran & Teall, 2012; Piran, 2017). This framework outlines a theoretical rationale for the inclusion of protective factors in prevention programmes. Findings of the review are synthesised to establish a knowledge base of current literature and to identify any gaps in the literature which may inform the empirical study.

The empirical paper outlines the execution of the current study which evaluates the effectiveness of the Body Project as a universal, whole-class, positive body image intervention in co-educational Irish post-primary schools. The empirical paper is structured into four key sections: Introduction, Methodology, Results and Discussion.

The Critical Review and Impact Statement details a critical review of the research study. It outlines an account of the epistemological and ontological stance adopted. It further considers the strengths and limitations of the current study. Implications of the findings are thoroughly discussed. The thesis concludes with an impact statement which delineates the impact of this research in the field of Educational and Child Psychology.

2 Literature Review

2.1 Introduction

This chapter presents a critical overview of the key concepts related to eating disorder prevention programmes and the promotion of positive body image. Eating disorders will be defined and the prevalence and prognosis of eating disorders will be outlined. Theories of body image development will then be reviewed, and positive body image will be discussed as a protective factor against eating disorder development. The prevention of eating disorders will be discussed, and preventative intervention approaches will be critiqued. The Developmental Theory of Embodiment will be explored as a theoretical lens through which the promotion of positive body image can be examined (Piran & Teall, 2012; Piran, 2017). The suitability of prevention programmes to the Irish post-primary school context will be discussed and the evidence base for classroom-based body image interventions will be explored. The suitability of the Body Project (Stice et al., 2006), a cognitive dissonance-based eating disorder prevention programme, as a whole-class, positive body image intervention in co-educational Irish post-primary schools will be investigated.

This chapter will conclude with a systematic review of the literature evaluating the efficacy of the Body Project as a positive body image intervention (Stice et al., 2006). This review will provide an overview of the evidence base for the Body Project to-date and highlight the gaps in the literature, providing rationale for the current research.

2.2 Eating Disorders

Eating disorders were first classified by the American Psychological Association in 1980. They can cause functional impairment, including academic difficulties (Claydon & Zullig, 2020). It is thought that 8.2% of women, and 2.2% of men experience an eating disorder during their lifetime (Galmiche et al., 2019). Present trends reflect eating disorder onset at younger ages (Favaro et al., 2019; van Eeden et al., 2021). A recent global meta-

analysis identified 15.5 years as the peak onset age of feeding and eating disorders (Solmi et al., 2022). Early onset restrictive eating disorders pose additional risk for growth impairment and pubertal delay (Neale et al., 2020). Clinical research suggests that the average age of onset for anorexia nervosa and bulimia nervosa is 18 years (Volpe et al., 2016). A recent study, carried out by Nolan et al. (2023) in Northern Ireland, found that 16% of 15–19-year-olds met the disordered eating criteria using the SCOFF, a brief eating disorder screening questionnaire (Morgan, 1999). This is concerning as eating disorder treatment prognosis is relatively poor, with Grilo et al. (2012) reporting that 41–43% of people diagnosed with an eating disorder experience relapse during the six years post-remission. It is also important to note that eating disorders are the most fatal psychiatric illness with a mortality rate of 5–7% (Arcelus et al., 2011).

In Ireland, eating disorder treatment is focused on the biopsychosocial model (Engel, 1977). As such, the multidisciplinary Child and Adolescent Mental Health Service (CAMHS) offers children and young people psychiatric and dietetic support, as well as psychological therapy and occupational therapy. In 2018, the National Clinical Programme for Eating Disorders (NCPED) was established to support children and young people experiencing eating disorders in Ireland. This is a collaborative initiative between the HSE, the College of Psychiatrists of Ireland and the national eating disorders association of Ireland; BodyWhys. In line with the NCEPD Model of Care for Eating Disorder Services, eight regional specialist out-patient CAMHS eating disorder teams are being developed on a phased basis across the country. Currently, two teams have been developed and staff for a third have been recruited. These teams operate on a stepped care model of service delivery, offering support across telehealth, outpatient, day patient and inpatient settings. BodyWhys offer Pilar Peer Led Resilience, a 4-week support programme for family and friends of someone with an eating

disorder, as well as a helpline, a chat support, and email support service for young people and psychoeducational supports for primary and post-primary school staff and pupils.

Concerningly, adolescent mental health difficulties were significantly exacerbated during the Covid-19 pandemic. In 2020, Irish mental health services reported a 61% increase in psychiatric hospital admissions for those aged under 18 years. Eating disorders accounted for 18% of admissions for children and adolescents (Health Research Board, 2021). This was a significant increase in eating disorder related psychiatric admissions for children and adolescents (O'Driscoll et al., 2023; Kerswill et al., 2023). These findings are consistent with global trends in eating disorder incidence and eating disorder related hospitalisation during the pandemic (Agostino et al., 2021; Devoe et al., 2023; Taquet et al., 2022; Linardon et al., 2022a). A multi-site study of six European hospitals with specialised child and adolescent eating disorder units collected data relating to admissions and symptomology throughout 2019 and 2020 (Gilsbach, 2022). Findings reflect increased rates of admission during the pandemic. In addition, eating disorder symptomology was found to be more severe. A systematic review found that factors associated with eating disorder pathology during the Covid 19 pandemic included reduced social support, limited healthcare access and increased anxiety (Gao et al., 2022). Reported increases in social media consumption are also thought to be linked (Gilsbach et al., 2023). Concerningly, Irish data shows that eating disorder rates have continued to rise since then and eating disorder presentations accounted for 22% of under 18s admissions in 2022 (Health Research Board, 2023).

Although eating disorders have primarily been considered a female issue in the past (Greenberg & Schon, 2008), it is critical to acknowledge that these increases in incidence of eating disorders have been noted across genders. A recent study exploring global prevalence of eating disorders, found that up to 2.4% of males in western countries have met the DSM criteria for an eating disorder by early adulthood (Silén & Keski-Rahkonen, 2022). During

the first 6 months of the Covid-19 pandemic, 40% of eating disorder related psychiatric admissions in Ireland were males (Barrett & Richardson, 2021). Literature draws attention to the complex relationship between gender dysphoria, body dissatisfaction and disordered eating and indicates that sexual and gender minority (SGM) groups such as transgender, non-binary, gay, lesbian, and bi-sexual individuals have an elevated risk of developing eating disorders (Coehlo et al., 2019; Parker & Harriger, 2020; Simone et al., 2022; Campbell et al., 2024).

In the past, it was thought that eating disorders are more prevalent amongst individuals from high socioeconomic backgrounds. However, research has shown that there does not appear to be a significant relationship between high socioeconomic status and eating disorders. Eating disorders are prevalent amongst all socioeconomic backgrounds (Huryk et al., 2021; Larson et al., 2021).

2.3 Body Image as a Risk Factor for Eating Disorder Pathology

Negative body image is a well-established risk factor for eating disorder pathology in adolescents and young adults (McLean & Paxton, 2019; Laporta-Herrero, 2018; Shagar et al., 2017). Body dissatisfaction has been found to be “the most consistent and robust causal risk factor for all forms of eating disorders in both genders” (Dakanalis et al., 2015, p.87). More recently, body dissatisfaction has also been identified as a risk factor for eating disorders in sexual and gender minority (SGM) groups (Jones et al., 2018). Indeed, there does not appear to be any significant sex-specific eating disorder risk factors (van Eeden et al., 2021; Ferreira et al., 2014).

Body image was first defined as “The picture of our own body which we form in our mind, that is to say, the way in which the body appears to ourselves” (Schilder, 1950, p.11). In 2004, Cash built on this definition by defining body image as a complex psychological experience of embodying a body that comprises self-perceptions, attitudes, thoughts, feelings

and behaviours. As such, body image attitudes are thought to be composed of two sub-constructs (Cash, 1994; Cash, 2002). Firstly, evaluation of body image refers to appearance satisfaction/ dissatisfaction and related beliefs and affect. Secondly, investment in body image refers to the cognitive-behavioural value of one's appearance and its pertinence to one's sense of self.

2.4 Theories of Body Image Development

The Tripartite Influence Model (Thompson et al., 1999) outlines three key sources that influence the development of body image: peers, parents, and the media. The model proposes that these sources lead to internalisation of thin appearance ideals and social comparison, which result in negative body image. More recently, Tylka (2011) has adapted the Tripartite Influence Model (Thompson et al., 1999) to include muscular/ mesomorphic appearance ideals for males. Roberts et al. (2022) have further adapted the model to include social media. In addition, recent literature builds on internalisation of thin appearance ideals and muscular appearance ideals to also include internalisation of slim-thick (extreme hourglass figures) appearance ideals as a source leading to negative body image (McComb & Mills, 2022; Hernandez et al., 2021; Betz & Ramsey, 2017).

Appearance related teasing from both peers and parents (Menzel et al., 2010; Voelker et al., 2015; Schaefer et al., 2014) as well as family 'fat talk', that is negative body commentary, can damage body image (Webb et al., 2018). In addition, comparison with peers in adolescence has been found to negatively impact body image (So & Kwon, 2023; Carey et al., 2014). A systematic review spanning 15 years suggests that peer pressure to be thin, conversations about weight and weight-control methods can predict body dissatisfaction amongst adolescents (Webb & Zimmer-Gembeck, 2014). Research has found that encouragement from parents to use weight-control or body shape control methods predicts weight concerns and disordered eating in girls and muscle-concerns in boys (Gillison et al.,

2016; Helfert & Warschburger, 2011). Whilst social media interactions with family members are not thought to impact negative body image, interactions with peers perceived to be attractive can have a negative impact on body image (Hogue & Mills, 2019).

In relation to media exposure, the Tripartite model (Thompson et al., 1999) states that internalisation of appearance ideals and appearance comparison predict negative body image, which is a risk factor for eating disorders. Marques et al., (2022) contest that social media consumption predicts body dissatisfaction. It is not the use of social media itself, but viewing content that promotes appearance ideals that negatively impacts body image (Meier & Gray, 2014). Rodgers et al (2015) support the Tripartite model by positing that internalisation of appearance ideals from the media predict appearance comparison. A recent systematic review of experimental studies lends further support to this theory by highlighting the mediating role of comparison between exposure to appearance ideal content on social media and body dissatisfaction (Fioravanti et al., 2022). A review of four meta-analyses composed of both longitudinal and experimental data supports the assertion that viewing appearance ideal images on social media negatively impacts body image and increases eating disorder symptomology (de Valle et al., 2021). The data collected was derived from 14 experimental samples and 10 longitudinal samples. Social media usage predicted negative body image longitudinally even when baseline body image was controlled for. Similarly, meta-analyses have found that viewing appearance ideal images in the media is detrimental to the body image of both males and females across different countries (Paterna et al., 2021; Huang et al., 2020). Findings suggest that social media exposure influences appearance ideal internalisation and thus onset of eating disorder symptomology. This is congruent with findings that traditional media negatively impact body image (Grabe et al., 2008; Myers & Crowther, 2009). Furthermore, a meta-analysis carried out by Cafri et al. (2005) indicates that three sociocultural constructs contribute to the development of negative body image:

awareness of a thin ideal; internalisation of a thin ideal; and perceived pressures to be thin. These factors remain significant when age and ethnicity are controlled for. This literature lends support to the Tripartite Model of Influence proposed by Thompson et al., (1999).

Feminist theories offer another explanation as to how societal pressures and gendered beliefs in western cultures negatively impact women's body image. Objectification theory (Frederickson & Roberts, 1997) delineates how the consumption of appearance ideal images can impact body image. This theory outlines how the systematic objectification of female bodies in western cultures is detrimental to the wellbeing of girls and women. It denotes that females living in these cultures experience self-objectification; meaning they value their body's appearance rather than its functionality and agency. Exposure to sexualised images on social media can prompt self-objectification, which can lead to negative body image in females (Papageorgiou, 2022; Gurtala & Fardouly, 2023). More recently, a similar process has also been found to affect males and transgender individuals (Boursier & Gioai, 2022; Brewster et al., 2019; Velez et al., 2016).

The Minority Stress Model (MSM; Meyer, 2003) argues that gender and sexual minority groups experience a heightened risk of developing poor body image as a result of the stigma and discrimination they experience. The MSM also highlights the role of social support as a protective factor (Meyer, 2015).

2.5 Positive Body Image

It has been argued that pathology-focused body image research concentrates on reducing negative body image, without exploring the promotion of positive body image and this limits our comprehension of body image as a concept and restricts clinician's ability to prevent negative body image development (Cash & Smolak, 2011; Tylka, 2011). Positive body image, which is situated in the field of positive psychology, has gained interest in recent years (Torres et al., 2022). Although originally considered the opposite of negative body

image, this viewpoint has been challenged in recent years because the absence of negative body image indicates merely neutral body image rather than positive body image (Seligman & Csikszentmihalyi, 2000, Striegel-Moore & Cachelin, 1999). Indeed, research by Tylka & Wood-Barcalow (2015a) suggests that positive body image is a unique construct, associated with wellbeing, even when negative body image is accounted for. The core characteristics of positive body image are delineated as appreciation of diverse body shapes and characteristics and the ability to be conscious of body-image related distress, whilst remaining positive, rational, and self-compassionate (Webb et al., 2015; Tylka & Wood-Baraclarow, 2015a). Body appreciation (BA) is a key aspect of positive body image. It is negatively correlated with eating disorder risk factors and can be grasped as a way of valuing the body and orienting cognitive processing to protect and promote a positive view of the body (Linardon et al., 2022b; Avalos et al., 2005; Frisén & Holmqvist, 2010; Wood-Barcalow et al., 2010).

Four key qualities of body appreciation have been delineated by Avalos et al. (2005): (a) favourable opinions of the body (regardless of actual physical appearance), (b) acceptance of the body in spite of weight, body shape, and imperfections, (c) respect of the body by attending to its needs and engaging in healthy behaviours, and (d) protection of the body by rejecting unrealistic body images portrayed in the media. (p.286)

A meta-analysis supports the concept of body appreciation as a unique construct (He et al., 2020). Moreover, high levels of body appreciation have been found to protect positive body image even in women who have internalised the thin ideal by moderating the significance of their appearance discrepancies (Halliwell, 2013). Body appreciation has also been found to predict psychological and social wellbeing (Linardon et al., 2022b; Swami et al., 2018). Body Mass Index (BMI) is negatively correlated with body appreciation and males

have been found to have higher body appreciation than females (He et al., 2020a; He et al., 2020b).

In addition, body functionality; appreciating everything one's body can do and conceptualising one's own body functionality in a holistic manner, is an aspect of positive body image. Alleva & Tylka's (2021) review of the body functionality literature over the past decade highlights the contribution of body functionality to psychological wellbeing. Frisén & Holmqvist (2010) found that young adolescents with high rates of body satisfaction held a functional view of their bodies and had robust body acceptance. This is in line with the Developmental Theory of Embodiment (Piran & Teall, 2012; Piran, 2017) which posits that embodied individuals place greater value on body functionality than physical appearance.

Furthermore, processing information related to appearance ideals in a protective manner is considered a key characteristic of positive body image in both male and females (Alleva et al., 2022; Evens et al., 2021; Avalos et al., 2005). Research highlights a strong critical stance towards appearance ideals as an attribute of individuals with positive body image. This critical stance extends beyond the physical appearance of ideals to include the media's underlying intentions when promoting retouched and unrealistic images (Wood-Barcalow et al., 2010; Holmqvist & Frisén, 2012).

2.6 Eating Disorder Prevention

Given the rising prevalence of eating disorders and the poor treatment prognosis, preventative approaches targeting body image are critically needed for young people (Koreshe et al., 2023; Laporta-Herrero, 2018). Adolescence is considered a critical period for body image development (Smolak, 2004) when significant increases in negative body image become common (Bucchianeri et al., 2013; Frisén et al., 2015; Wertheim & Paxton, 2011). Adolescence has been identified as the optimal time for eating disorder prevention

programmes as body image concerns in adolescence are a predictor of future eating disorder onset (Dakanalis et al., 2017; Stice et al., 2017).

Schools are widely recognised as appropriate sites for interventions to improve body image among adolescents as they offer the potential for sustained interactions with inclusive groups of young people at a developmentally appropriate age, where they are already in a learning environment (Torres, 2021; Diedrichs & Halliwell, 2012; Levine & Smolak, 2006). Body image programmes can be incorporated into school curricula (Kusina & Exline, 2019; O’Dea et al., 2004), and have been found to be effective in school settings (Guest et al., 2022; Kurz et al., 2022; Chua et al., 2020). However, some research suggests that post-primary teachers may not feel confident in selecting and delivering appropriate body image content (Yager et al., 2013).

Prevention approaches can occur across three levels: universal, selective, and indicative. Universal approaches address risk/protective factors in entire population groups without accounting for individual risk. Selective approaches aim to mitigate a significant risk factor in identified individuals. Indicative approaches are for individuals who do not yet meet the criteria for an eating disorder but have several risk factors and may have symptomology (Weisz et al., 2005). Although universal approaches may yield smaller effect sizes, they have far greater reach (Stice et al., 2013a). Considering the prevalence of eating disorders amongst adolescents, it is important to explore the potential of universal prevention strategies for this population.

2.7 Positive Body Image Interventions

Much of the evaluative research on eating disorder prevention programmes to date has focused on the reduction of risk factors (Le et al., 2017; Loucas et al., 2014; Melioli et al., 2016; Watson et al., 2016). However, evidence suggests that it is essential for universal prevention programmes to focus on the development of protective factors to reduce early risk

factor development (Levine & Smolak, 2016). Protective factors independently decrease the likelihood of disordered eating development. They can be understood as the factors that interrupt the processes through which risk factors lead to disordered eating (Smolak, 2012). Focusing on protective factors, rather than risk factors, is important in universal approaches as not all young people have elevated levels of risk factors that need reduction, but all young people can benefit from increasing protective factors (Smolak & Levine, 2015).

It is proposed that targeting the promotion of positive body image, rather than targeting a reduction in negative body image, can improve wellbeing (Webb et al., 2015; Linardon et al., 2022b). This is in line with the suggestion that universal prevention programmes should aim to bolster positive body image (Ciao et al., 2018). Importantly, research indicates that positive body image can be successfully targeted through intervention (Tylka & Wood-Barcalow, 2015a; Kusina & Exline, 2019; Kurz et al., 2022).

Body appreciation, a key dimension of positive body image, is a direct predictor of intuitive eating; that is eating in response to hunger cues rather than external cues or restrictive eating practices (Andrew et al., 2016; Avalos & Tylka, 2006). Individuals with higher body appreciation, consequently, have greater awareness of their physical needs and increased respect for their bodies. Additionally, Halliwell (2013) found that body appreciation reduces the negative impact of exposure to sociocultural appearance ideals in females. A recent meta-analysis (Linardon et al., 2022b) highlights the consistent relationship between body appreciation and physical and psychological wellbeing. Critically, they express the need for eating disorder prevention programmes to target body appreciation.

There are many different preventative approaches (Alleva et al., 2015). Kusina and Exline (2019) conducted a systematic review of 34 studies which concluded that interactive, classroom-based, universal interventions can improve positive body image in adolescents. They found dissonance-based, media-literacy, and self-esteem approaches to be the most

commonly used prevention programmes in schools. Dissonance based approaches are underpinned by cognitive dissonance theory (Festinger, 1957) which outlines how people try to align their attitudes with their behaviours. Media literacy approaches strive to teach individuals the skills to think critically about appearance ideal messages conveyed by the media, by increasing participants awareness of how digital alteration can promote unrealistic standards (Levine & Harrison, 2009). Self-esteem programmes aim to boost individuals' confidence and self-efficacy by incorporating strategies that support individuals to identify their strengths beyond physical appearance. As self-esteem is a causal risk factor for body dissatisfaction, these approaches are predicted to reduce negative body image (Furnham et al., 2002).

Whilst all intervention approaches showed effectiveness, Kusina & Exline (2019) found that cognitive dissonance-based approaches yielded larger effect sizes than media literacy or self-esteem approaches when used in universal classroom-based interventions. This is in line with the findings of Kurz et al. (2022) meta-analysis, and Halliwell and Diedrich's (2019) conclusions that dissonance-based interventions boost positive body image and embodiment amongst adolescents. Previous research has shown that cognitive dissonance-based interventions are suitable for high-risk, selective audiences (Watson et al., 2016). More recent research suggests that they may also be effective for universal interventions (Halliwell & Diedrichs, 2014).

As research in the field of eating disorder prevention has mostly focused on females (Murray et al., 2017), it is important to consider the prevalence of eating disorders amongst male, non-binary and transgender adolescents (Gordon et al., 2021; Murray et al., 2018). There is some literature to evidence the protective role of positive body image against eating disorder risk-factor development in males (Alleva et al., 2018; Gillen, 2015). More specifically, positive body image has been found to predict decreased appearance ideal

internalisation in men (Alleva et al., 2022). Therefore, it is pivotal that prevention programmes target all adolescents regardless of gender.

2.8 The Developmental Theory of Embodiment

Research shows that The Developmental Theory of Embodiment (DTE; Piran & Teall, 2012; Piran, 2017) is consistent with protective factors for eating disorders (Webb et al., 2015; Tylka & Kroon Van Diest, 2015; Piran et al., 2023). The DTE is a social theory outlining the development of embodiment. Embodiment can be conceptualised as capturing the experience of living in the body; both positive and negative. It has been defined as “the lived experience of engagement of the body with the world” (Piran & Teall, 2012, p.171).

Central to embodiment are body connection, agency and functionality, attuned self-care, and freedom from objectification (Piran, 2016). The DTE presents an integrated theoretical model of simultaneous social forces that impact experiences of embodiment. Additionally, the DTE offers a theoretical lens through which the promotion of positive body image can be examined. It posits that the social experiences which impact ones’ experience of embodiment and body image can be categorised in three domains: the Physical Freedom domain, the Mental Freedom domain, and the Social Power domain (See Table 1).

Table 1

The Developmental Theory of Embodiment (Piran & Teall, 2012; Piran, 2017)

Protective Factors	DTE Domain		
	Physical Freedom	Mental Freedom	Social Power
	Pleasurable engagement in physical activities.	Freedom of voice, assertive action and passionate engagement in activities unrelated to appearance.	Freedom from exposure to prejudicial treatment and discrimination related to social identities.
	Safe social environment free of violations, forced compliance with harsh appearance standards.	Freedom from and a critical stance towards stereotypes of gendered appearance standards.	Social environment that provides experiences of social power and equity that are unrelated to appearance.
	Social experiences that teach, support, enhance and model attuned self-care.	Freedom from and a critical stance towards constraining stereotypes of gendered behaviour/ other limiting stereotypes (e.g. race).	Empowering relationships that provide acceptance validation and role-modelling.
	Pleasurable connection to desires.		Positive connection to ones embodied location.

As such, the DTE provides wider contextual factors for consideration in positive body image programmes which aim to prevent eating disorders. Although the research basis for the DTE focused only on females. Embodiment has been shown to be a greater predictor of life satisfaction than self-esteem for both men and women (Gattario et al., 2020).

2.9 The Irish Context

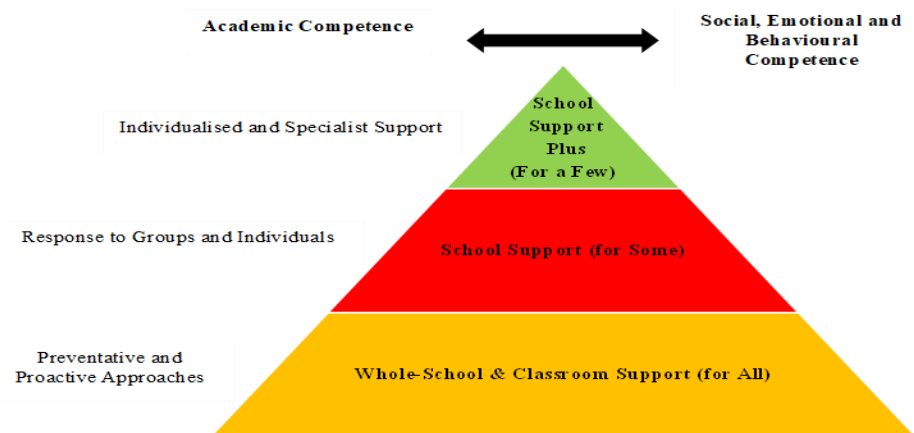
There are a number of factors that suggest that Irish post-primary schools may be suitable settings for the delivery of positive body-image interventions. The Wellbeing Policy Statement and Framework for Practice was published by the Department of Education in 2018. It delineated a five-year plan for all schools to ensure that:

The promotion of wellbeing will be at the core of the ethos of every school and centre for education. All schools and centres for education will provide evidence-informed approaches and support, appropriate to need, to enhance the wellbeing of all. Ireland will be recognised as a leader in wellbeing promotion in schools and centres for education (p.20).

With consideration to the rising prevalence of eating disorders amongst adolescents (Health Research Board, 2023), it could be argued that preventative programmes with a focus on positive body image promotion may have a role in the wellbeing of post-primary school students in Ireland. This is in line with the Continuum of Support Post-Primary Framework which was set out by the National Educational Psychological Service (NEPS) in 2010 to support schools to identify and respond to students' needs (See Figure 1).

Figure 1

Continuum of Support Framework (NEPS, 2010, p.13)



The Continuum of Support recognises that students require varying levels of support based on their unique needs. This framework suggests that all schools should offer universal prevention programmes at the Support for All level to foster students’ social, emotional, and behavioural wellbeing as well as their learning. Indeed, the Education Support Centres of Ireland, in collaboration with Jigsaw the National Centre for Youth Mental Health and the Irish Research Council, delivered a national webinar for school staff entitled ‘Building Body Confident Schools’ in May 2023. The need for school-based intervention was at the fore of this webinar and post-primary schools were encouraged to participate in an upcoming randomised control trial evaluating a new universal school-based body image programme (Mahon et al., 2023).

Positive body image interventions can be delivered during the senior cycle of post-primary school. The Transition Year programme, which forms the first year of the secondary school senior cycle in Ireland, offers clear opportunities for the delivery of positive body image interventions. Transition Year is a distinct, one-year programme “...that promotes the personal, social, vocational and educational development of students and prepares them for

their role as autonomous, participative and responsible members of society” (Department of Education, 1994, p.2).

It is important to note that universal classroom-based positive body image interventions are in line with some of the aims of the senior cycle curriculum. Firstly, the senior cycle Social Personal and Health Education (SPHE) curriculum framework includes five key areas of learning: mental health; gender studies; substance use; relationships and sexuality; and physical activity and nutrition (NCCA, 2011). Within the mental health area of learning, Self-Awareness and Personal Skills is a key topic. The NCCA SPHE Toolkit (2021) encourages teaching and learning about body image and eating disorders as part of the Self-Awareness and Personal Skills topic.

Secondly, positive body image interventions can be incorporated into the Leaving Certificate Physical Education (LCPE) curriculum. Whilst Physical Education at senior cycle (Senior Cycle Physical Education; SCPE) is a non-examinable compulsory subject, LCPE is an optional examinable subject. Students have the option to participate in either SCPE or LCPE, or to undertake both subjects. The LCPE curriculum is comprised of two strands: Towards Optimum Performance and Contemporary Issues in Physical Activity. Gender and Physical Activity is a topic in the latter strand, in which students learn about the impact of the media and wider society on body image and women’s participation in sport. Informed by sociocultural theories and feminist theories of body image, body image interventions can reduce internalisation of gendered appearance ideals (Kurz et al., 2022; Chua et al., 2020).

In summary, the rate of eating disorders amongst children and adolescents in Ireland is continuing to rise (Health Research Board, 2023). Positive body image is a protective factor against eating disorder development (Linardon et al., 2022b). The promotion of positive body image can be explored through the theoretical lens of the DTE (Piran & Teall, 2012; Piran, 2017). Adolescence is recognised as the ideal time for eating disorder prevention

programmes and schools have been identified as appropriate settings to deliver these programmes (Dakanalis et al., 2017; Stice et al., 2017; Torres, 2021; Diedrichs & Halliwell, 2012). The current study proposes that universal positive body image interventions could be incorporated into the senior cycle curriculum in Irish post-primary schools; through LCPE, SPHE, or as part of the Transition Year programme.

2.10 The Body Project Programme

The Body Project (Stice et al., 2006) is a cognitive dissonance-based eating disorder prevention programme. The intervention targets those aged 14-22 years of age and aims to reduce appearance ideal internalisation by encouraging participants to think critically about how the media portrays the ideal body. The Body Project intervention involves a series of exercises in which participants must argue against appearance ideals. This results in cognitive dissonance for those who had internalised the appearance ideal, and as such reduces their belief in this ideal. To this end, the Body Project intervention reduces risk of eating disorder onset.

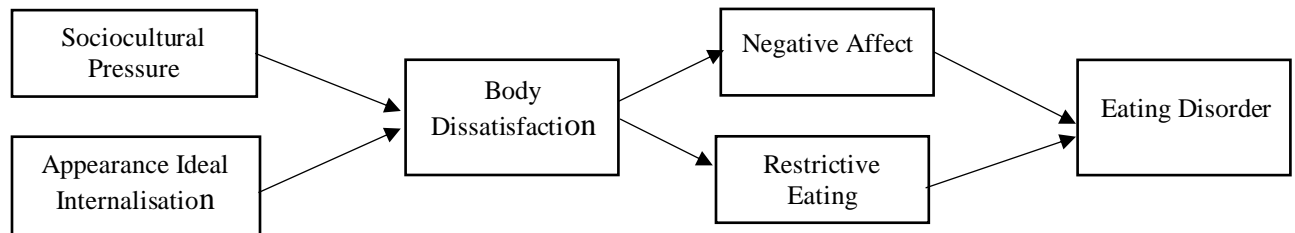
A meta-analysis of eating disorder prevention programmes attests to the efficacy of dissonance-based interventions in reducing thin-ideal internalisation and reducing negative body image (Stice et al., 2019). The Body Project has been carried out with over 3 million participants in more than 125 countries (Becker & Stice, 2017). It has been shown to have longstanding effects with benefits observed up to 4 years post-intervention (Stice et al., 2019). Furthermore, a number of cross-cultural studies indicate that the intervention may be effective across cultures and ethnicities (Stice et al., 2021; Amaral et al., 2019; Resende et al., 2022; Casasnovas et al., 2021; Unikel-Santoncini et al., 2019). Further research is needed to determine its effectiveness in the Irish cultural context.

The Body Project is theoretically underpinned by Cognitive Dissonance Theory (Festinger, 1957), and the Dual Pathway Model for disordered eating (Stice, 2001). The Dual

Pathway Model is based on research that prospectively predicts eating disorder development in females (See Figure 2)

Figure 2

Dual Pathway Model



This model theorises that sociocultural pressures to be thin and the internalisation of appearance ideals, negatively impact body dissatisfaction. This subsequently increases levels of negative affect and restrictive eating ; dual paths which predict eating disorder pathology.

The Body Project is a multi-layered programme comprised of dissonance, psychoeducation, media literacy and body acceptance elements. Based on Cognitive Dissonance theory (Festinger,1957) and the Dual Pathway Model (Stice, 2001), the Body Project intervention involves a series of exercises in which participants must verbally argue against, and behaviourally challenge the appearance ideal (See Table 2).

Table 2*Body Project Exercises*

Session	Counter-Attitudinal Activities
1	Defining and challenging appearance ideals. Letter writing to discourage the pursuit of appearance ideals. Acknowledging and appreciating ones own positive physical attributes and personal qualities.
2	Reflecting on the detrimental effects of striving for appearance ideals. Interviewing others to gain insight into negative effects of pursuing appearance ideals. Discouraging pursuit of appearance ideals through role-play.
3	Undertaking personal behavioural challenges. Taking part in social activism efforts aimed at challenging appearance standards. Challenging appearance related discourse through role play and practice in the community.
4	Discussion of benefits of group. Self-affirmation exercise.

These counter-attitudinal activities aim to induce cognitive dissonance among individuals who have internalised societal appearance norms, ultimately leading to a reduction in their endorsement of these ideals to align with their actions. Consequently, the Body Project intervention lowers the risk of developing eating disorders.

The Body Project may work to promote positive body image as the programme components are considered protective factors by the DTE (Piran & Teall, 2012; Piran, 2017). The DTE protective factors can be viewed in Table 1. Indeed, Piran (2015) suggests that the content of the Body Project supports participants' attunement with their bodies, their appreciation and connection to their bodies, and their sense of agency. In line with the Physical Freedom domain of the DTE, the Body Project boosts positive body ownership by

supporting participants to think about how pressures to conform to appearance ideals have impacted on the ways in which they inhabit their bodies and by encouraging participants to practice inhabiting their bodies more authentically (e.g. wearing a short-sleeve t-shirt in warm weather even if they don't think their arms align with gendered appearance ideals). The Body Project aligns with the Mental Freedom domain of the DTE as it urges participants to take a critical stance towards the appearance ideals portrayed by the media and wider society. In accordance with the Social Power domain, participants are encouraged to become agents of change and take action to reject appearance ideal messages at a community level. Through role plays with peers, participants co-construct new peer-norms regarding how they speak about their bodies.

Although the programme was originally developed for adolescent girls and young women, a pilot study has found that an adapted version of the Body Project, the Body Project: M significantly improves body image in males (Jankowski et al., 2017). In addition, an adapted version of the Body Project for gay men has been found to be effective and acceptable (Brown & Keel 2015). Also, an adapted version of the Body Project which targets both eating disorders and muscle-dysmorphia has shown effectiveness and acceptability (Brown et al., 2017; Almeida et al., 2021). A systematic review conducted by Kusina and Exline (2019) supports the effectiveness of universal body image interventions for both male and female adolescents. However, a meta-analysis suggests that males and females should receive separate body-image interventions (Kurz et al., 2022). Research is needed to further investigate this.

Stice et al. (2013a) recommend that future research should explore the impact of dissonance-based eating disorder prevention programmes delivered universally in classrooms. The Body Project has yielded positive outcomes as a small group, female-only, universal eating disorder prevention intervention in school settings (Halliwell & Diedrichs,

2014). Preliminary research from the UK shows that the Body Project may be suitable for implementation as a universal, small-group, positive body-image intervention in secondary schools (Jarman et al., 2021). However, more research is needed to evaluate the acceptability and effectiveness of the Body Project as a universal, whole-class intervention in co-educational post-primary schools.

2.11 Systematic Review of the Literature

A systematic review of the literature was undertaken to answer the review question: What is known about the impact of the Body Project intervention on positive body image and appearance ideal internalisation? This review sought to highlight, and critically review, the findings of previous studies and to identify the gaps in the existing literature to provide direction for future research.

2.11.1 Search Strategy and Screening

A comprehensive systematic search of the peer-reviewed literature was conducted between the 17/02/2023 and the 19/02/2023. This search was repeated on the 23/02/2024 to search for any relevant papers published after February 2023 (see Figure 3). Databases used to run the search included: Education Resources Information Centre (ERIC), Education Source, MEDLINE, Academic Search Complete and APA PsychInfo. Table 3 displays the search terms inputted to the databases and the filters applied. The search terms were generated using a Population Exposure Outcome (PEO) framework and include variations of the terminology and Boolean operators. The search generated 204 studies. Following duplicate removal, 83 studies remained. Table 4 details the inclusion and exclusion criteria for screening studies. Figure 4 illustrates the screening process using a PRISMA chart (Liberati et al., 2009). The studies were screened at the title and abstract level which resulted in the exclusion of a further 56 articles. The remaining 27 studies were screened at the full-text level. Appendix A shows the studies excluded at the full text screening level and

corresponding rationale. Ancestral reference searching was carried out for every text article screened at full text to locate any relevant articles that may not have been initially located within the database search. Following the extensive search and screening procedure, 7 articles from the databases and 3 articles from the ancestral search fully met the inclusion criteria.

Studies included in the review can be seen in Table 5.

Table 3

Search Terms

Population	Exposure	Outcome
'Body Project'	AND Intervention	AND 'Body Image'
	OR Program*	OR 'Body Satisfaction'
	OR Workshop	OR 'Body Appreciation'
	OR Prevent*	OR Ideal*
	OR Course	OR Internali*

Table 4*Inclusion and Exclusion Criteria*

Reference	Domain	Inclusion Criteria	Exclusion Criteria	Rationale
1	Type of Publication	Peer-reviewed journal article.	Studies that are not published in peer-reviewed journal articles.	To strive for academic rigour.
2	Publication Year	Published from 2006 onwards.	Published before 2006.	The Body Project was developed in 2006.
3	Language	Study must be available in the English language.	Study is not available in the English language	As translation services are not available, articles must be in the English language in order to be accurately appraised.
4a	Methodological Quality	Sufficiently powered study.	Pilot study or insufficiently powered study.	To reduce risk of bias.
4b		Primary data.	Secondary data.	To avoid multiplicity and to ensure original findings.

5	Intervention	The Body Project (Stice et al., 2006).	Any other intervention programmes, or significantly adapted versions of the Body Project.	This review seeks to evaluate the impact of the traditional Body Project (Stice et al., 2006) on positive body image and thin ideal internalisation.
6	Outcome Measures	Must include pre and post intervention Positive Body Image and/or Appearance Ideal Internalisation measures.	Does not include either Positive Body Image or Appearance Ideal Internalisation measures at Pre and Post intervention.	The focus of this review is to evaluate the changes in participants' Positive Body image and Appearance Ideal Internalisation as a result of intervention.

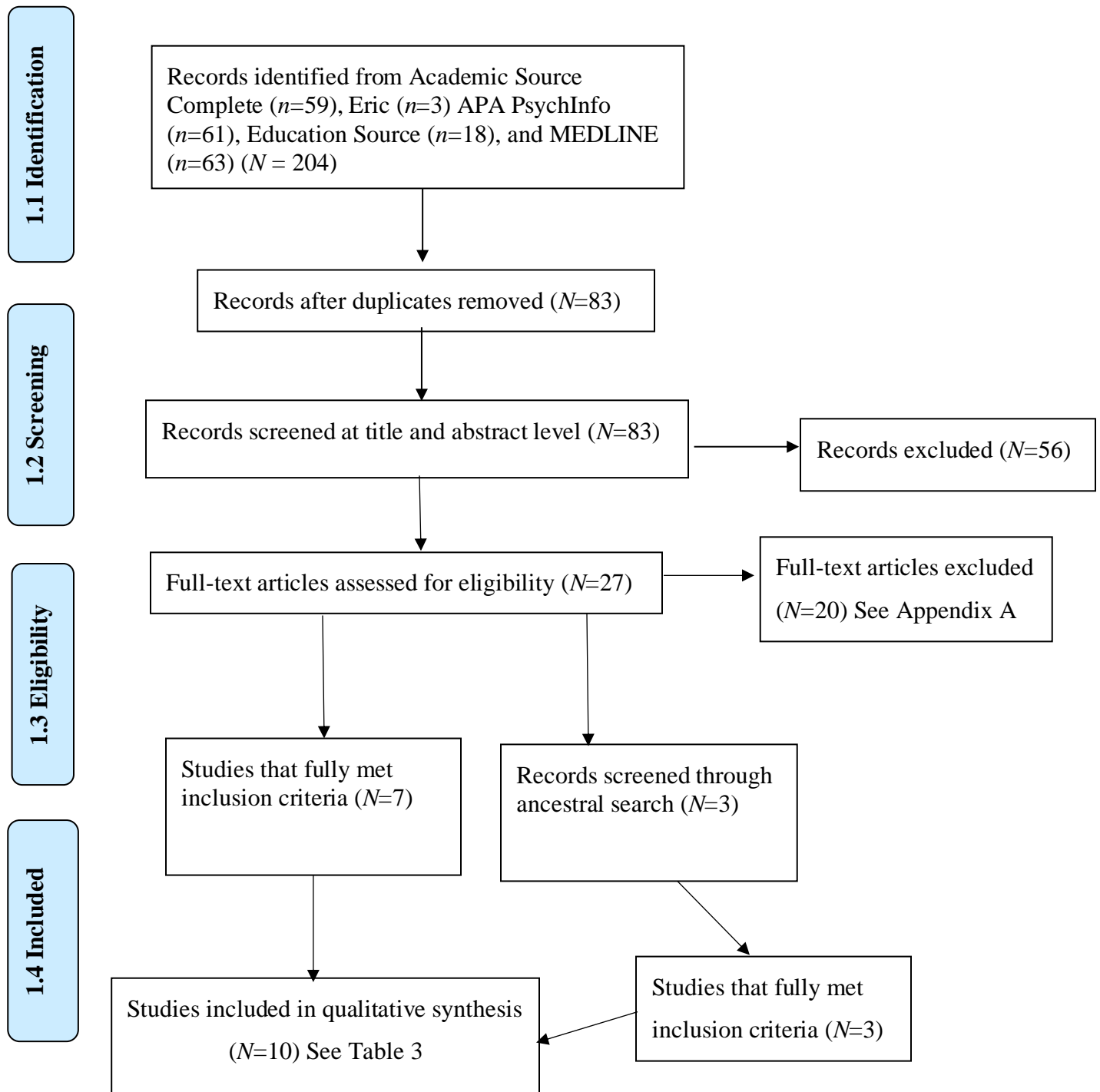
Figure 3*PRISMA Flow Chart of the Study Selection Process*

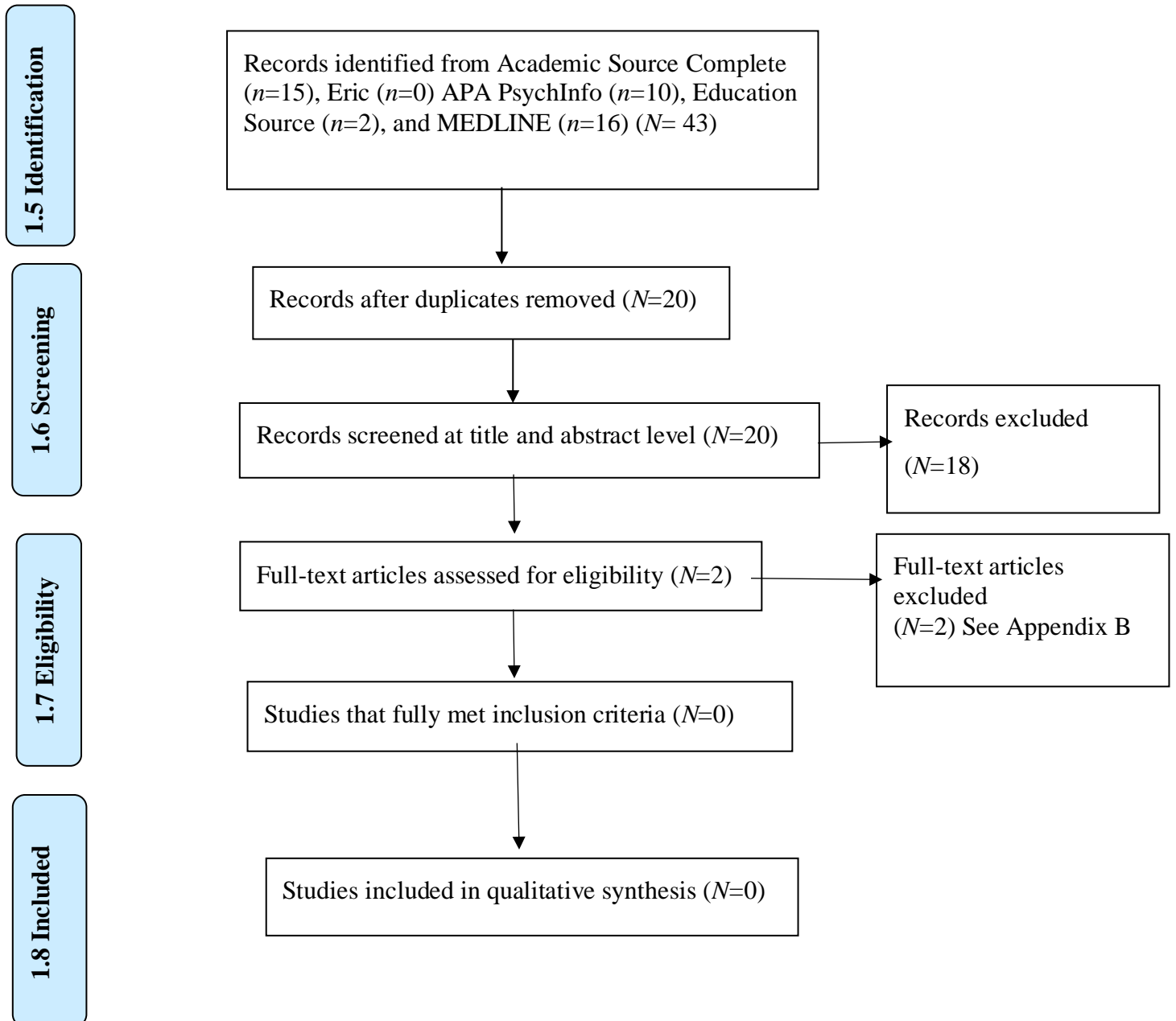
Figure 4*PRISMA Flow Chart of the Updated 2024 Study Selection Process*

Table 5*Studies Included in Review*

References of Included Studies	
1	Amaral, A. C. S., Stice, E., & Ferreira, M. E. C. (2019). A controlled trial of a dissonance-based eating disorders prevention program with Brazilian girls. <i>Psicologia, reflexao e critica: revista semestral do Departamento de Psicologia da UFRGS</i> , 32(1), 13. https://doi.org/10.1186/s41155-019-0126-3
2	Ghaderi, A., Stice, E., Andersson, G., Enö Persson, J., & Allzén, E. (2020). A Randomized Controlled Trial of the Effectiveness of Virtually Delivered Body Project (vBP) Groups to Prevent Eating Disorders [Article]. <i>Journal of Consulting & Clinical Psychology</i> , 88(7), 643-656. https://doi.org/10.1037/ccp0000506
3	Hudson, T. A., Amaral, A. C. S., Stice, E., Gau, J., & Ferreira, M. E. C. (2021). Dissonance-based eating disorder prevention among Brazilian young women: A randomized efficacy trial of the Body Project. <i>Body Image</i> , 38, 1-9. https://doi.org/10.1016/j.bodyim.2021.03.008
4	Resende, T. R. O., Almeida, M., Dos Santos Alvarenga, M., Brown, T. A., & de Carvalho, P. H. B. (2022). Dissonance-based eating disorder prevention improves intuitive eating: a randomized controlled trial for Brazilian women with body dissatisfaction. <i>Eating and weight disorders: EWD</i> , 27(3), 1099-1112. https://doi.org/10.1007/s40519-021-01245-x
5	Stice, E., Bohon, C., Shaw, H., & Desjardins, C. D. (2023). Efficacy of Virtual Delivery of a Dissonance-Based Eating Disorder Prevention Program and Evaluation of a Donation Model to Support Sustained Implementation. <i>Journal of Consulting & Clinical Psychology</i> , 91(3), 139-149. https://doi.org/10.1037/ccp0000796
6	Stice, E., Butryn, M. L., Rohde, P., Shaw, H., & Marti, C. N. (2013). An effectiveness trial of a new enhanced dissonance eating disorder prevention program among female college students. <i>Behaviour Research and Therapy</i> , 51(12), 862-871. https://doi.org/https://doi.org/10.1016/j.brat.2013.10.003
7	Stice, E., Rohde, P., Gau, J., & Shaw, H. (2009). An Effectiveness Trial of a Dissonance-Based Eating Disorder Prevention Program for High-Risk Adolescent Girls. <i>Journal of Consulting and Clinical Psychology</i> , 77(5), 825-834. https://doi.org/10.1037/a0016132
8	Stice, E., Rohde, P., Shaw, H., & Gau, J. (2011). An effectiveness trial of a selected dissonance-based eating disorder prevention program for female high school students: Long-term effects. <i>Journal of Consulting and Clinical Psychology</i> , 79(4), 500-508. https://doi.org/10.1037/a0024351
9	Stice, E., Rohde, P., Shaw, H., & Gau, J. M. (2017). Clinician-Led, Peer-Led, and Internet-Delivered Dissonance-Based Eating Disorder Prevention Programs: Acute Effectiveness of These Delivery Modalities. <i>Journal of Consulting & Clinical Psychology</i> , 85(9), 883-895. https://doi.org/10.1037/ccp0000211
10	Stice, E., Rohde, P., Shaw, H., & Gau, J. M. (2020). Clinician-led, peer-led, and internet-delivered dissonance-based eating disorder prevention programs: Effectiveness of these delivery modalities through 4-year follow-up. <i>Journal of Consulting and Clinical Psychology</i> , 88(5), 481-494. https://doi.org/10.1037/ccp0000493

2.11.2 Critical Appraisal

A summary of the studies included in the review can be seen Appendix C. This briefly outlines the research sample, study design, intervention, outcomes measures, and findings of each study. These were critically appraised in reviewing the studies.

The Weight of Evidence (WoE) Framework (Gough, 2007) was used to evaluate and synthesise the five studies included in the review. This framework evaluates research across three dimensions; WoE A, B and C, in which the studies receive a rating of high, medium, or low. These ratings then cumulatively form an overall weighting score WoE D.

The WoE A assesses the methodological quality of the research. More specifically, it evaluates the coherence and integrity of the study. Gersten et al.'s (2005) coding protocol was used to measure the WoE A as all studies employed group-experimental designs (See Appendix D). This coding protocol is comprised of two subsets of questions: Essential Quality Indicators, and Desirable Quality Indicators.

The WoE B judges the appropriateness of the methodology in relation to the review question. It assesses the extent to which the study design enables the research to address the review question. The WoE C evaluates the degree to which the study focus is applicable to the review question. Petticrew and Roberts (2003) Typology of Evidence was used to guide the WoE B (See Appendix E) and WoE C (See Appendix F) judgments.

Lastly, the WoE D, the overall weighting, is the average of the combined scores for WoE A, B and C. This indicates the extent to which a study can address the review question. Table 6 documents the WoE ratings for each of the included studies. Studies have been given an overall weighting score of Low (≤ 1.4), Medium (≥ 1.5 to ≤ 2.4) or High (≥ 2.5).

Table 6*Weight of Evidence Ratings*

Study	WoE A	WoE B	WoE C	WoE D
Amaral et al., (2019)	3	2	2.3	2.4 (Medium)
Ghaderi et al., (2020)	3	3	2.3	2.8 (High)
Hudson et al., (2021)	3	3	1.7	2.6 (High)
Resende et al., (2022)	3	3	1.7	2.6 (High)
Stice et al., (2023)	3	3	2.3	2.8 (High)
Stice et al., (2013b)	3	3	3.0	3.0 (High)
Stice et al., (2009; 2011)	3	3	2.3	2.8 (High)
Stice et al., (2017; 2020)	3	3	3.0	3.0 (High)

2.11.2.1 Participants. Across all the studies, participation was voluntary. In all studies but one (Stice et al., 2023), recruitment procedures involved education settings. More specifically, participants were recruited through high schools or universities. Recruitment procedures involved the distribution of flyers, leaflets and posters on education campuses, messages sent to students' educational email addresses, online forums and online bulletin boards. Some studies employed programme ambassadors to recruit participants from education settings using class-announcements. For the one study that did not recruit from education settings (Stice et al., 2023), participants in a geographical location were recruited via email, online bulletin boards and advertisements. Ghaderi et al., (2020) recruited from both high schools and online. They used advertisement banners on social media websites. Importantly, all recruitment campaigns targeted young women with body image concerns. Therefore, all study samples were comprised of the target population. However, as all participants self-referred to the intervention programme there may be a risk of self-selection bias, which may affect the generalisability of the findings (Elston, 2021).

In all studies, potential participants were screened to ensure that they did not currently have significant eating disorder psychopathology. As the Body Project is an eating disorder prevention programme, rather than a treatment programme, it is important to evaluate the programme's effectiveness in preventing the development of eating disorders by reducing risk-factors. The screening procedures were imperative to ensure that the interventions were being assessed on their target population.

Furthermore, it has been argued that culture can impact one's body image (Swami et al., 2010). Research suggests that women of Black ethnicity report slightly less subscription to thin-ideal internalisation and have lower rates of body dissatisfaction than women of White ethnicity (Stice et al., 2021; Roberts et al., 2006; Grabe & Hyde, 2006). Importantly, Stice et al. (2021) indicate that whilst the Body Project is effective across ethnicities, some intervention effects have yielded larger effect sizes for participants of Hispanic and Asian ethnicities compared to participants of White and Black ethnicities. Hence, it was important to evaluate the cultural diversity of the samples in the current review. Three of the studies (Stice et al., 2013b; Stice et al., 2017; 2020, Stice et al., 2023) reported culturally/racially diverse samples. Thus, these studies received higher WoE C weightings. One study reported a largely White sample (Stice et al., 2009; 2011), another study based in Sweden, did not report race or ethnicity of the sample (Ghaderi et al., 2020). The remaining studies (Amaral et al., 2019; Hudson et al., 2021; Resende et al., 2022) focused on Brazilian participants and did not collect data regarding race or ethnicity.

All of the included studies employed a Randomised Controlled Trial (RCT) design. RCT designs are considered the Gold Standard for effectiveness research because they minimize the risk of statistical bias (Hariton & Locascio, 2018; Flay et al., 2005). As such, participants were randomly assigned to control groups in all the studies. There was variation in the types of control groups employed across the studies. Active control groups are

considered the most effective method of comparison (Karlsson & Bergmark, 2015) and were employed in four of the studies (Stice et al., 2009; 2011; Ghaderi et al., 2020, Stice et al., 2013b; Stice et al., 2017; 2020). The remaining four studies (Amaral et al., 2019; Hudson et al., 2021; Resende et al., 2022; Stice et al., 2023) employed assessment-only or waitlist/inactive controls. The use of inactive control groups in research trials increases the risk of exaggerated effect sizes (Laws et al., 2022).

All studies, except for Amaral et al., (2019), had longitudinal designs with follow-up test times ranging from 6 months post-intervention to 4 years post-intervention. Follow-up studies provide valuable information about continuity of interaction effects, as well as prediction and onset of psychopathologies such as eating disorders (Caruana et al., 2015).

2.11.2.2 Intervention Fidelity. All included studies evaluated the traditional version of the Body Project (Stice et al., 2006) and reported good fidelity in delivering the programme. This involved delivering the programme in small group settings. Group sizes across the studies varied from five to 10 participants. Butryn et al. (2014) delineates arguments both for and against small group sizes in cognitive-dissonance interventions. On the one hand, small group size may allow each participant opportunities for active participation which is key to cognitive dissonance induction. On the contrary, it is possible that increased dissonance may be induced in larger groups as each participant would have a bigger audience observe them challenging appearance ideals. All studies included in the review delivered the programme over four weeks, with one-hour weekly sessions as recommended by Stice et al., (2006).

In addition, all studies employed trained facilitators to deliver the programme. Both Amaral et al. (2019) and Hudson et al. (2021) employed trained researchers to deliver the programme. No further information about the researchers was provided in either study. They followed the script from the intervention manual, which had been translated to Portuguese for

both studies. Stice et al. (2013b) employed trained college clinicians (with qualifications in psychology, social work, nutrition, and related fields) to deliver the programme in accordance with the scripted manual. Ghaderi et al. (2020) employed trained psychology undergraduate students to deliver the programme in line with the Swedish translation of the scripted manual. Resende et al. (2022) employed two trained peer-leaders to facilitate the intervention in accordance with the Portuguese translated script. Stice et al. (2023) employed pairs of trained peer-educators to deliver the intervention in line with the scripted manual. Stice et al. (2009;2011) employed pairs of school counsellors and school nurses who were trained as facilitators of the Body Project. They delivered the programme in line with the manual. Stice et al. (2017;2020) employed two groups of facilitators to deliver the intervention in pairs. The first group was comprised of clinicians working in mental health services for students and the second group was comprised of students who wished to become peer-educators. All facilitators received training and adhered to the scripted manual.

The majority of the studies included in the review delivered the Body Project programme in person (Amaral et al., 2019; Hudson et al., 2021; Resende et al., 2022; Stice et al., 2013b; Stice et al., 2009). Two studies delivered the Body Project virtually (Ghaderi et al., 2020; Stice et al., 2023). The remaining study (Stice et al., 2017; 2020) delivered the intervention in person, and used the e-Body Project, an internet-based, user-driven version of the programme. As the e-Body Project programme has been discontinued, this review will focus solely on the data Stice et al. (2017) collected from the in person intervention groups. Moreover, intervention groups that were delivered in person took place in high school (Amaral et al., 2019; Stice et al., 2009;2011) or university campuses (Hudson et al, 2021; Resende et al., 2022; Stice et al., 2013b, Stice et al., 2017;2020).

In addition, all the studies except one (Amaral et al., 2019) reported procedures to check fidelity. Overall, trained facilitators delivered the intervention to small groups in line

with the scripted manual for one-hour per week for four consecutive weeks and employed fidelity checks, boosting the WoE B ratings.

2.11.2.3 Outcome Measures. The reliability and validity of the included measures in each study in the review were reflected in the WoE A ratings. All the studies included measures of appearance ideal internalisation. This is relevant to the review question because rejection of appearance ideals is a key feature of positive body image (Avalos et al., 2005).

Amaral et al. (2019) and Hudson et al. (2021) used the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3; Thompson et al., 2004). The SATAQ-3 is a reliable scale with excellent construct validity and good convergent validity (Thompson et al., 2004). Resende et al. (2022) used the more recent version of the questionnaire, the SATAQ-4R (Schaefer et al., 2017). This scale has been shown to have high test-retest reliability, internal consistency, and construct validity (Schaefer et al., 2017).

Ghaderi et al. (2020), Stice et al. (2013b) and Stice et al. (2009;2011) used the Ideal-Body Stereotype Scale-Revised (IBSS R; Stice et al., 1996). It has shown good internal consistency, test-retest reliability, sensitivity to identify intervention effects and validity for eating disorder onset (Stice et al., 2008). Stice et al. (2017;2020) and Stice et al. (2023) used the Thin ideal internalisation scale (TIIS; Stice et al., 2017), this scale is a revised version of the IBSS R with higher internal consistency.

Moreover, three of the studies measured body appreciation. This is key to the review question as body appreciation is a central component of positive body image (Avalos et al., 2005; Frisé and Holmqvist, 2010; Wood-Barcalow et al., 2010). Two studies (Amaral et al., 2019; Hudson et al., 2021) employed the original Body Appreciation Scale (BAS; Avalos et al., 2005). Research shows that this scale has high construct validity and test-retest reliability and internal consistency (Avalos et al., 2005). The other study (Resende et al., 2022) used the more recent, revised Body Appreciation Scale 2 (BAS-2; Tylka & Wood-Barcalow, 2015b).

It has been found to have high internal consistency, good test-retest reliability, and high construct validity (Tylka & Wood-Barcalow, 2015b).

2.11.2.4 Outcomes. All three studies that measured body appreciation found significant improvements at post-intervention (Amaral et al., 2019; Hudson et al., 2021; Resende et al., 2022). Importantly, two of these studies reported that the increases in body appreciation were maintained at 6-month follow up (Hudson et al., 2021; Resende et al., 2022). Effect sizes ranged from small to large ($d = .24 - 1.31$) at post-test and small to medium ($d = .30 - .65$) at 6-month follow up.

All studies included in this review reported significant reduction in appearance ideal internalisation following the intervention. Effect sizes ranged from medium to large ($d = .65 - .96$) at post-test. Longevity of this effect was reported at 6-months follow-up (Hudson et al., 2021; Resende et al., 2022), 1-year follow-up (Stice et al., 2013b), 2-year follow-up (Ghaderi et al., 2020), and 4-year follow-up (Stice et al., 2020). However, Stice et al., (2009;2011) found that intervention effects for appearance ideal internalisation were not maintained at 6-month follow-up.

2.11.2.5 Risk of Bias. Lo and Field (2009) delineate how a conflict of interest may arise in situations where a primary interest may be at risk of being compromised by secondary interests. Ahn et al., (2017) highlight the risk of confirmation bias in RCT research where the investigator has financial ties to the trial's outcomes. The creator of the Body Project programme is the lead author of six, and a co-author of three of the 10 studies included in this review. As such, there is only one independent piece of research included in this review (Resende et al., 2022). Therefore, due consideration must be given to the risk of confirmation bias in the review. In addition, as all studies involved self-referral there is a risk of self-selection bias, which may affect the generalisability of the findings (Elston, 2021).

2.11.3 Discussion

The findings of this review evidence the effectiveness of the Body Project in increasing body appreciation (Amaral et al., 2019; Hudson et al., 2021; Resende et al., 2022). Importantly, changes in body appreciation were found to be lasting at 6-months follow up (Hudson et al., 2021; Resende et al., 2022). As a protective factor against eating disorder development, body appreciation decreases the risk of eating disorder development (Smolak, 2012). Body appreciation is consistent with three dimensions of embodiment: body connection and comfort; inhabiting the body as a subjective site vs. as an objective site; and agency and functionality (Piran, 2015). Theoretically, the Body Project fosters the development of these aspects of positive body image and embodiment (Halliwell & Diedrichs, 2019).

The results of this review also indicate that dissonance-based intervention reduces appearance ideal internalisation. Internalisation of appearance ideals is a key risk-factor for eating disorder onset (Thompson, 1999). This finding is especially relevant given the impact of appearance ideal consumption through media content for young people (de Valle et al., 2021; Paterna et al., 2021; Huang et al., 2020; Vuong et al., 2021).

Previous research suggests it is essential for universal prevention programmes to target protective factors to reduce early risk factor development (Levine & Smolak, 2016). All studies included in the review delivered the Body Project as a selective intervention. There is some research to suggest that the Body Project may be suitable for universal delivery. Butryn et al. (2014) found that the Body Project has positive effects for those with lower and higher baseline eating disorder symptoms, although effect sizes are greater for those with higher baseline eating disorder symptoms.

In addition, preliminary research carried out by Halliwell & Diedrichs (2014) found that an adapted short version of the Body Project was effective as a small-group, universal

intervention, but effect sizes were smaller than for targeted interventions. This is in line with Kusina & Exline (2019) findings that universal body image interventions are effective, but effects are smaller and short in duration compared to selective interventions. Future research is needed to establish the efficacy of the Body Project as a universal intervention.

All studies included in the review used the Body Project as a small group intervention for five to 10 participants. The variation in intervention groups sizes of the included studies did not appear to impact the intervention effectiveness. This is in line with Butryn et al. (2014) who found that within a range of five to nine participants, group size did not impact the effectiveness of the intervention. Further research should evaluate the effectiveness of the Body Project intervention in larger group settings.

A number of studies included in this review support the effectiveness of the Body Project when delivered virtually (Ghaderi et al., 2020; Stice et al., 2023). In addition, this review suggests that the Body Project intervention is suitable for delivery in both post-primary schools and universities. Several of the studies in this review implemented the intervention in small groups outside of class time (Amaral et al., 2019; Hudson et al., 2021; Resende et al., 2022; Stice et al., 2009; 2011; Stice et al., 2013b; Stice et al., 2017; 2020). It has been recommended that researchers should evaluate the effectiveness of the Body Project as a universal, classroom-based eating disorder prevention programme (Stice et al., 2013b). However, little is currently known about the efficacy of delivering the Body Project to a whole class group.

Studies included in the review suggest that the intervention is similarly effective when delivered by a peer facilitator or a clinician (Stice et al., 2017; 2020). However, facilitator training is recognised as a key factor that can increase the effectiveness of the intervention (Stice et al., 2009; 2011).

Studies in the review that explored the effectiveness of the Body Project amongst Brazilian and Swedish populations provide support for the cultural adaptiveness of the intervention (Amaral et al., 2019; Ghaderi et al., 2020; Hudson et al., 2021; Resende et al., 2022). This is in line with previous literature that suggests the Body Project is effective across cultures (Casasnovas et al., 2021; Unikel-Santoncini et al., 2019; AlShebali et al., 2022) and previous research which suggest that the Body Project is similarly effective across ethnic and racial groups (Stice et al., 2014; Stice et al., 2021), and that matching participants' race/ethnicity with group members and with facilitators, does not impact the program effectiveness (Stice et al., 2021). Indeed, recent research from the United Kingdom suggests that the Body Project is highly acceptable amongst adolescent girls (Jarman et al., 2021). However, further research is needed to investigate if the Body Project is acceptable amongst Irish adolescents.

The current review lends support to previous literature that shows that the Body Project is effective in increasing positive body image for young women. There is a growing body of research that suggests adapted versions of the Body Project show promising results for young men. Indeed, RCTs have found the Body Project: More than Muscles, an adapted version of the Body Project for men targeting eating disorder and muscle dysmorphia, has been found to reduce appearance ideal internalisation (Brown et al., 2017; Almeida et al., 2021). In a pilot study, Jankowski et al. (2017) found another adapted version of the Body Project, the Body Project M to be both effective in reducing appearance ideal internalisation and increasing body appreciation. In addition, an RCT conducted by Brown & Keel (2015) found that an adapted version of the Body Project for gay men, the PRIDE Body Project reduced appearance ideal internalisation. However, there is a dearth of literature investigating the efficacy of mixed-gender delivery of the Body Project. A pilot study by Kilpela et al. (2016) found that when delivered in a mixed-gender setting, the Body Project increased body

satisfaction for males, but there were no reported benefits for females. An adapted version of the Body Project focused on gender-inclusion and diversity, has shown promising results in reducing appearance ideal internalisation (Ciao et al., 2021). Kusina & Exline (2019) argue that mixed-gender body image interventions are effective for adolescents. This warrants further investigation through future research.

A key limitation of this review is the risk of confirmation bias arising from the inclusion of the creator of the Body Project programme as an author in nine of the 10 included studies. Further high-quality independent research would add to the robustness of the evidence base.

2.12 Conclusion

In conclusion, the findings of this systematic literature review suggest that the Body Project is an effective positive body image intervention for females when delivered as a selective small-group intervention. The review highlights that the programme may be culturally adaptive and suitable for implementation in education settings. However, it is worth noting that much of the robust evaluative research has been carried out by the programme founder, increasing the possible risk of confirmation bias. Independent research is needed to address the effectiveness of the Body Project as a universal positive-body image intervention when delivered in a mixed-gender, whole-class setting in Irish post-primary schools.

3 Empirical Paper

3.1 Introduction

The empirical paper offers a detailed outline of the execution of the current study, which evaluates the effectiveness of the Body Project (Stice et al., 2006) as a universal, whole-class positive body image intervention in co-educational Irish post-primary schools. This chapter begins with an Introduction followed by the Methodology section which details the data collection and data analysis procedures employed. The results obtained are clearly outlined and thoroughly discussed in the following Results and Discussion sections.

3.2 Eating Disorders in the Irish Context

Eating disorders were first classified by the American Psychological Association (APA) in 1980. The three main eating disorders are Anorexia Nervosa (AN), Bulimia Nervosa (BN) and Binge Eating Disorder (BED). In 2013, the Diagnostic Statistical Manual of Mental Disorders (APA) expanded the classified Feeding and Eating Disorders to include Avoidant/Restrictive Food Intake Disorder (ARFID). Eating disorders have the highest mortality rate of all mental health conditions (Arcelus et al., 2011). Lifetime prevalence of AN, BN and BED are estimated to be approximately 4% in Ireland (NIMH, 2016). This can be understood as approximately 188,900 people experiencing an eating disorder per annum. Eating disorder pathology has been historically under-reported for males and they are estimated to account for 25% of AN and BN and up to 36% of BED cases (Hudson et al., 2007). Little is currently known about ARFID prevalence rates. Recent Irish data shows that eating disorder prevalence is continuing to rise amongst under 18s (Health Research Board, 2023).

Adolescence is a peak time for AN and BN onset (Micali et al., 2013). Late adolescence and early 20s is peak for BED onset (Lock et al., 2015). Most recent data show

that eating disorders account for 22% of psychiatric admissions for children and adolescents in Ireland (Health Research Board, 2023). Recent research suggests that the age of eating disorder onset appears to be decreasing (Favaro et al., 2019; van Eeden et al., 2021; Solmi et al., 2022).

Parents of adolescents with eating disorders in Ireland report many barriers to accessing effective care (McArdle et al., 2019). It has also been found that most Irish young people do not know how to seek support from eating disorder services (McNicholas et al., 2018). Moreover, The STEDI (Stigma and Treatment of Eating Disorders in Ireland) study highlights the increased stigma around eating disorders compared to other mental health difficulties amongst adolescent populations in Ireland (O'Connor et al., 2016).

3.3 Prevalence of Body Dissatisfaction amongst Irish Youth

Body dissatisfaction is a predictor for eating disorder onset for male and female adolescents (McLean & Paxton, 2019; Laporta-Herrero, 2018; Shagar et al., 2017; Ferreiro et al., 2014). Diverse sexual and gender minorities (SGM) have an increased risk of developing eating disorders due to the complex relationship between gender dysphoria, body dissatisfaction and disordered eating (Coehlo et al., 2019; Parker & Harriger, 2020; Simone et al., 2022; Romano et al., 2022; Campbell et al., 2024). Cash (2004) defines body image as a multi-faceted psychological experience of embodying a body that comprises self-perceptions, attitudes, thoughts, feelings, and behaviours. Cash (1994; 2002) asserts that body image consists of two sub-constructs: evaluation of body image; and investment in body image.

The Eating Problems in Irish Children and Adolescents (EPICA) study carried out with over 3,000 adolescents in Irish post-primary schools highlights the prevalence of body image concerns (McNicholas et al., 2010). The report suggests that more than 1/3rd of Irish

adolescent girls experience body dissatisfaction. Interestingly, girls attending co-educational schools were found to have the higher rates of body dissatisfaction than girls attending single-sex schools.

3.4 Risk Factors for Body Dissatisfaction amongst Irish Youth

Adolescence is recognised as a critical period in body image development for males and females (Voelker et al., 2015). Research has shown that early puberty is a risk factor for body dissatisfaction in Irish girls. Early maturing girls report a greater drive for thinness and higher levels of body dissatisfaction (McNicholas et al., 2012). This can be understood through the lens of Objectification Theory (Frederickson & Roberts, 1997), which posits that females in western cultures experience self-objectification; meaning they place higher value on how their body looks rather than its functionality and agency. Consumption of sexualised images on social media can trigger self-objectification, which can damage body image (Papageorgiou, 2022; Gurtala & Fardouly, 2023). It has been proposed that a similar process affects males and transgender individuals (Boursier & Gioai, 2022; Brewster et al., 2019; Velez et al., 2016). Additionally, the Minority Stress Model (MSM; Meyer, 2003) proposes that sexual and gender minority (SGM) groups have an increased risk of developing poor body image because of societal discrimination (Meyer, 2015).

The Tripartite Influence Model (Thompson et al., 1999) outlines three key sources that influence the development of body image: peers, parents, and the media. The model denotes that these sources contribute to internalisation of appearance ideals which causes body dissatisfaction. The Dual Pathway model further supports our understanding of the relationship between family/peer pressure and social media usage, body dissatisfaction and risk of eating disorder pathology (Stice, 2001). This model theorises that sociocultural

pressures to be thin and internalisation of appearance ideals lead to body dissatisfaction and negative affect; dual paths which predict eating disorder pathology.

Within the family context, ‘fat talk’, that is negative body commentary, is thought to contribute to body dissatisfaction (Webb et al., 2018). Furthermore, appearance-related teasing has been found to increase the risk of body dissatisfaction (Menzel et al., 2010; Voelker et al., 2015; Schaefer et al., 2014). Irish research has revealed that adolescents who experience appearance-related cyber-bullying are twice as likely to have a negative perception of their bodies (Kenny et al., 2018). Additionally, international research has shown that peer comparison can increase body dissatisfaction amongst adolescents and that appearance related peer pressure is also harmful to body image development (Carey et al., 2014; Webb & Zimmer-Gembeck, 2014). In Ireland, adolescent peers have been found to influence each others’ body dissatisfaction and weight-control methods (Kenny et al., 2018; Mooney et al., 2009). There is a wealth of literature, both international and Irish, which indicates that social media use, particularly the consumption of appearance ideal related content, predicts body dissatisfaction (Napp & Thomas, 2022; Marques et al., 2022; Meier & Gray, 2014; Fioravanti et al., 2022; de Valle et al., 2021). According to recent data collected as part of the Growing Up in Ireland research (2023), 98% of 13-year-olds in Ireland have access to a smartphone. Importantly, 82% of 13-year-olds in Ireland spend at least one hour per day online each weekday and reported increased internet usage on the weekends. Scully et al., (2023) report that social media engagement offers increased opportunities for appearance-related social comparison, which results in negative appraisal and thus body dissatisfaction amongst Irish adolescent girls. Furthermore, Irish adolescents report that engaging in appearance related activities, such as liking and sharing photos and engaging in appearance comparisons on social media causes feelings of body dissatisfaction (Mahon & Hevey, 2021). This is in line with the findings of Lawler and Nixon (2011), which contend

that internalisation of appearance ideals is a key risk factor for body dissatisfaction amongst Irish adolescent boys and girls.

3.5 Positive Body Image as a Protective Factor

Protective factors interrupt the processes through which risk factors lead to disordered eating (Smolak, 2012). Positive body image is a unique construct correlated with wellbeing, which involves having an appreciation of diverse body shapes and characteristics (Tylka & Wood-Barcalow, 2015a), and consciousness of body-image related distress whilst remaining positive, rational, and self-compassionate (Webb et al., 2015). Positive body image can be characterised by body appreciation (Avalos et al., 2005; Frisén and Holmqvist, 2010; Wood-Barcalow et al., 2010). Body appreciation can be delineated as appreciating the body and adjusting cognitive processing to shield and foster a positive view of the body (Wood-Barcalow et al., 2010). Research has found that cognitively processing information related to appearance ideals in a protective manner is a central characteristic of positive body image in both males and females (Alleva et al., 2022; Avalos et al., 2005; Wood-Barcalow et al., 2010). Young people with positive body image tend to hold a strong critical stance towards appearance ideals, and the media's promotion of such (Wood-Barcalow et al., 2010; Holmqvist & Frisén, 2012). This is in line with findings that body appreciation bolsters against the harmful effects of appearance ideal exposure for adolescent girls (Halliwell, 2013). It has been argued that eating disorder prevention programmes should target positive body image development (Levine & Smolak, 2016; Kenny et al., 2018).

3.6 The Developmental Theory of Embodiment and Eating Disorder Prevention

The Developmental Theory of Embodiment (DTE; Piran & Teall, 2012; Piran, 2017) is consistent with protective factors for eating disorders (Webb et al., 2015; Tylka & Kroon Van Diest, 2015). The DTE is a social theory which explains the development of

embodiment. Embodiment has been delineated as “the lived experience of engagement of the body with the world” (Piran & Teall, 2012, p.171). The DTE proposes a theoretical lens for positive body image promotion (Piran, 2015). It holds the view that social experiences which impact ones’ experience of embodiment and body image can be categorised in three domains: the Physical Freedom domain, which pertains to physical experiences; the Mental Freedom domain, which relates to social discourses; and the Social Power domain, which focuses on addressing experiences of body-related disempowerment.

3.7 The Body Project as a Positive Body Image Intervention

Piran (2015) suggests that the Body Project may work to promote positive body image as the programme fosters participants’ attunement with their bodies, their appreciation and connection to their bodies, and their sense of agency. Through the lens of the Developmental Theory of Embodiment (DTE; Piran & Teall 2012; Piran, 2017), the Body Project intervention uses interactive activities to target the protective domains. Theoretically underpinned by Cognitive Dissonance Theory (Festinger, 1957), the Body Project involves exercises in which participants must verbally argue against, and behaviourally challenge the appearance ideal. These exercises invoke cognitive dissonance for participants who had internalised the appearance ideal, and in turn reduce their belief in this ideal in order to correspond with their actions. Therefore, the programme supports participants to develop a critical stance towards appearance ideals portrayed by the media. This is a central characteristic of positive body image (Alleva et al., 2022; Avalos et al., 2005; Wood-Barcalow et al., 2010; Holmqvist & Frisén, 2012).

The Body Project has been found to be effective in reducing appearance ideal internalisation (Amaral et al., 2019; Ghaderi et al., 2020; Hudson et al., 2021; Resende et al., 2022; Stice et al., 2023; Stice et al., 2013b; Stice et al., 2009; 2011; Stice et al., 2017; 2020).

Longevity of intervention effects has been reported, with effect sizes remaining largely unchanged at 4-year follow up (Stice et al., 2020). The Body Project encourages participants to value the functionality of their bodies and to inhabit their bodies in a more authentic way, free from pressures to conform to ideals. This may foster the development of body appreciation, a key characteristic of positive body image (Avalos et al., 2005; Wood-Barcalow et al., 2010). The Body Project (Stice et al., 2006) has been found to be effective as a positive body image intervention as it has significantly increased body appreciation amongst female participants (Amaral et al., 2019; Hudson et al., 2021; Resende et al., 2022). Importantly, intervention effects were maintained at 6-month follow-up.

Considering the importance of peer and family influence on body image development (Thompson et al., 1999), the Body Project involves community-based exercises and encourages participants to become activists to foster positive body image in their local environments. Vanderkruik et al., (2020) found that participation in the Body Project correlated with self-reported reductions in ‘fat talk’ frequency, family ‘fat talk’ frequency, and overall weight concerns.

3.8 The Need for Universal Interventions in Ireland

Given the prevalence of eating disorders and body dissatisfaction (Health Research Board, 2023; McNicholas et al., 2010), as well as stigmatising attitudes towards eating disorders amongst Irish youth (O’Connor, 2015), it can be argued that universal intervention programmes are needed to promote positive body image in Ireland. Irish research (Scully et al., 2023) highlights the value of intervention programmes which support adolescents to develop a critical understanding of how appearance ideals are promoted through social media. The effects of universal prevention programmes are far-reaching (Stice et al., 2013a). As males have rarely been the focus of eating disorder research, it is important to evaluate mixed-gender interventions (Guest et al., 2022; Kusina & Exline, 2019). It is also important to

be cognisant of the higher rates of body dissatisfaction experienced by girls attending co-educational Irish post-primary schools, compared to those attending single-sex post-primary schools (McNicholas et al., 2010). There is limited high-quality research evaluating the effectiveness of the Body Project (Stice et al., 2006) for mixed-gender delivery. In a pilot study, Kilpela et al. (2016) found an adapted 2-session version of the Body Project, the Body Project for All, to be effective in increasing body satisfaction for males, but not females when delivered in a mixed-gender setting. However, intervention effects were also not significant for the female-only comparison group. Another version of the Body Project adapted to be inclusive for diverse populations, the EveryBody Project (Ciao et al., 2018) showed promising outcomes for participants. The content of this programme differed from Kilpela et al. (2016) as it included adaptations that focused on diversity and exclusion within appearance ideals. However, the sample was largely cisgender female (Ciao et al., 2021). Therefore, more research is needed to confirm the efficacy of the Body Project as a universal, mixed-gender intervention.

3.9 Suitability of the Body Project to the Irish Post-Primary School Setting

Whilst there is a wealth of literature evaluating eating disorder prevention programmes, the majority of the research is focused on selective high-risk female audiences (Wilksch, 2014). The need for school-based body image programmes in Ireland has been documented (Mooney et al., 2009). Preliminary research has shown that the Body Project may be suitable for implementation as a universal positive body-image programme in post-primary schools (Halliwell & Diedrichs, 2014). The Body Project may be suited to Irish post-primary schools as it is in line with the Wellbeing Policy Statement and Framework for Practice (Department of Education, 2018), which delineates a plan to ensure that all schools implement evidence-informed approaches to improve the wellbeing of students. In addition,

the Body Project could be incorporated into the Continuum of Support Post-Primary Framework (NEPS, 2010), which supports schools to identify and respond to students' needs (See Figure 1). It recommends that schools should implement universal prevention programmes at the Support for All level to foster students' social, emotional, and behavioural wellbeing, as well as their learning.

Moreover, the Body Project is suited to the Transition Year programme, a distinct, one-year programme "...that promotes the personal, social, vocational and educational development of students and prepares them for their role as autonomous, participative and responsible members of society" (Department of Education, 1994, p.2). It may also be suited to the senior cycle curriculum and the Social Personal Health Education (SPHE) and Leaving Certificate Physical Education (LCPE) curriculum areas, which include body image education. Therefore, research is needed to evaluate the implementation of the Body Project in Irish post-primary schools.

3.10 The Current Study

The purpose of the current study is to evaluate the effectiveness of the Body Project (Stice et al., 2006) as a universal, whole-class, positive body-image intervention in co-educational Irish post-primary schools. The following overarching research question was posed: Is the Body Project effective as a whole-class, positive body-image intervention in co-educational Irish post-primary schools? With the aim of addressing the gaps in the literature, two specific questions were posed (See Table 7).

Table 7*Research Questions*

Research Question	Null Hypothesis	Alternate Hypothesis
Q.1 Does the Body Project reduce appearance ideal internalisation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools?	The Body Project will not reduce appearance ideal internalisation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools.	The Body Project will reduce appearance ideal internalisation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools.
Q.2 Does the Body Project increase body appreciation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools?	The Body Project will not increase body appreciation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools.	The Body Project will increase body appreciation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools.

3.11 Methodology**3.11.1 Design**

A 2x2 quasi-experimental mixed design was employed. The first independent variable (IV) was group (between: intervention group or waitlist control). The second IV was time (within: baseline and post-intervention). There were two dependent variables (DV) appearance ideal internalisation and body appreciation. The variables can be seen in Table 8.

Table 8*Variables*

Variables	Independent		Dependent	
	Name	Details	Name	Details
Between subjects variable: Experimental Group	Intervention group completed the Project programme between the 20/04/23 and the 08/05/23.	Body Project Waitlist control group completed a compressed one-day Body Project workshop on the 09/05/23.	Appearance Ideal Internalisation	Measured using the Sociocultural Attitudes Towards Appearance Questionnaire 4 (SATAQ-4R; Schaefer et al., 2017).
Within subjects variable: Time	Intervention group completed the measures at baseline (20/04/23) and post-intervention (08/05/23).	The control group completed the measures on the 18/04/23 and the 09/05/23 prior to taking part in the intervention.	Body Appreciation	Measured using the Body Appreciation Scale 2 (BAS-2; Tylka & Wood-Barcalow, 2015b).

3.11.2 Ethical Considerations

Ethical approval was granted by the Mary Immaculate Research Ethics Committee (MIREC) in January 2023 (See Appendix G). Research procedures were guided by the Psychological Society of Ireland Code of Professional Ethics (2019). Institutional approval to conduct the study was sought from the Principal of each school (Appendix H). Written,

informed consent was sought from all participants' parent(s)/guardian(s) (See Appendix I). Written, informed assent was sought from all participants (See Appendix J).

The names of the schools, and the names of the participants were not recorded at any point throughout the intervention sessions or data collection process. Anonymous data has been stored on the researcher's Office365 One Drive account. The data will be safely stored for a period of 5 years after project completion in line with the Mary Immaculate College Records Retention Schedule. Further details regarding the ethical considerations of the study are discussed in Critical Review and Impact Statement, which comprise the final chapter of this thesis.

3.11.3 Participants

The target sample size was calculated a priori using the G*Power 3.1 statistical programme (Faul et al., 2007). The results of the calculation showed that a minimum total sample size of $N=34$ participants ($n=17$ per condition) would be required to detect a medium effect size of $d=.25$ with statistical power of .8 (Cohen, 1988).

38 participants took part in the study. However, $n=3$ participants were lost at post-test due to attrition. Data from one participant was excluded due to incompleteness. Therefore, the final sample size was $N=34$. Complete data was gathered from $n=17$ participants in the intervention group and $n=17$ participants in the waitlist control group. Participant demographics can be seen in Table 9.

Table 9

Participant Demographics

Gender Identity	Number of Participants
Male	21
Female	16
Chose not to disclose	1

Participants were Transition Year students. Therefore, they were aged between 15-17 years. Participants from two co-educational post-primary schools took part in the study. Both schools were community schools with approximately 1000 students enrolled. Both schools were located in the suburbs of an urban city and neither had DEIS (Delivering Equality of Opportunity in Schools) status. DEIS is a comprehensive strategy for promoting educational inclusion, which involves a standardised method for identifying and assessing levels of disadvantage.

All participants were enrolled in Leaving Certificate Physical Education (LCPE) as an elective examination subject for their Leaving Certificate. This was not an inclusion criterion for the study, however the Transition Year Co-Ordinators in both schools identified the LCPE class as a suitable group to deliver the intervention to as the topic of body image relates to the LCPE curriculum. It is in line with the Contemporary Issues in Physical Activity strand of the curriculum, Gender and Physical Activity in which students learn about the impact of the media and wider society on body image and women's participation in sport.

3.11.4 Materials

Data was collected using paper and pencil questionnaires. The researcher inputted the data manually into Microsoft Excel to create a file which was transferred to IBM SPSS Statistics version 26 software for data analysis. The researcher delivered the Body Project (Stice et al., 2006) to participants using an adapted version of the facilitation manual. Microsoft PowerPoint was used to support the delivery of the intervention in the classroom.

3.11.4.1 Intervention Adaptations. The 4-session Body Project script (Stice et al., 2006) was adapted for universal, whole-class mixed gender delivery. A brief outline of the adaptations made can be seen in Table 10.

Table 10*Intervention Adaptations*

Single Facilitator	Gender Neutral Script	Universal, Whole-Class Setting
The facilitator and another trained volunteer pre-recorded demonstrations for activities which require modelling. The facilitator presented these to the group in video format on the classroom interactive whiteboard, in accordance with the UDL approach for classrooms (Hall et al., 2012).	Adaptations were informed by Kilpela et al. (2016). Combined the 4-Session Body Project script and the 4-Session Body Project for Males scripts to refer to both male and female appearance ideals. Pronouns 'he/she' were replaced with 'they' in the adapted script.	Discussion topics and activity guidelines were presented verbally and visually in Microsoft PowerPoint format on the classroom interactive whiteboard in line the Universal Design for Learning (UDL) approach for classrooms (Hall et al., 2012). Participants were divided into small groups for discussion topics and activities to enhance dissonance induction (Butryn et al., 2014).

3.11.4.1.1 Single Facilitator Delivery. As the current study formed a doctoral thesis, it was conducted by a single researcher and thus, the intervention was delivered by a single facilitator. The 4-Session Body Project manual suggests that having a co-facilitator can be helpful when delivering the sessions. For the role play and quick-comeback task demonstrations in sessions two and three, which require modelling, the facilitator, and another trained volunteer pre-recorded demonstrations. The facilitator presented these to the group in video format on the interactive whiteboard, in accordance with the UDL approach for the classroom (Hall, 2012). Additionally, the Class Teacher remained in the room at all times throughout the intervention for safeguarding purposes.

3.11.4.1.2 Gender Neutral Facilitator Script. The facilitator script was adapted by the researcher to be gender neutral. This was important as body dissatisfaction is an identified risk factor for eating disorder onset across genders and sexualities (Lawler & Nixon, 2011; Coehlo et al., 2019; Parker & Harriger, 2020). The adaptations in the current study were informed by Kilpela et al. (2016) whose adaptations were based on the outcomes of focus group discussions with students. This involved combining aspects of the 4-Session Body script and the 4-Session Body Project for Males script. The adapted script intervention retained all activities, structure, time allocation, and format as the traditional script. The group discussed both male and female, and SGM group appearance ideals. Where suitable, the pronouns ‘he/she’ were replaced with ‘they’ in the adapted script. Pronouns used in the intervention activities were also adapted. For example, participants were asked to write a letter to a ‘younger person’ rather than a ‘younger girl/boy’ for the session one letter writing exercise.

3.11.4.1.3 Universal, Whole-Class Setting Delivery. As the Body Project is a cognitive dissonance-based programme, it is essential that participants actively engage in order to induce dissonance. It is traditionally delivered in a small group format to allow each participant opportunities for active participation, which is key to cognitive dissonance induction. To ensure that all participants had the opportunity to actively engage in the intervention exercises in the whole-class setting, several adaptations were made. Firstly, in addition to being given verbal directions by the facilitator, discussion topics and activity guidelines were presented in Microsoft PowerPoint format on the classroom interactive whiteboard to support students understanding. This is in line with the second principle of the Universal Design for Learning (UDL) approach which promotes using multiple means of representation to support students to access learning materials (Hall et al., 2012).

Secondly, participants were divided into small groups of five to six participants for discussion topics. A representative of each group then shared a summary of the discussion with the whole class group to elicit cognitive dissonance. Butryn et al., (2014) propose that cognitive dissonance may still be induced in larger groups as participants have a greater audience to observe them challenging appearance ideals.

Thirdly, participants were divided into small groups for all intervention activities to provide opportunities for individual participation in order to induce cognitive dissonance. Role plays and quick comebacks were practiced in small groups and then performed for the entire class group to elicit cognitive dissonance.

3.11.5 Procedure

The researcher participated in the 4-week virtual Body Project programme delivered by Mary Immaculate College (MIC) Counselling Service between March and April 2022, and subsequently completed formal training as a Body Project facilitator in June 2022.

A convenience sampling method was used to recruit Transition Year class groups to participate in the study. The decision to take a convenience sampling approach was based on feasibility within the time-constraints and financial limitations of the proposed study as a requirement of the Professional Doctorate in Educational and Child Psychology (DECPSy) programme (Maciejewski, 2018). The researcher contacted co-educational post-primary schools, that did not have DEIS status, in the Munster region by email to inform them of the study and assess their interest in taking part. After the initial email was sent, schools received a follow-up phone call from the researcher to offer additional information and/or to confirm their interest. A total of two schools agreed to take part in the study.

The decision to recruit from schools that did not have DEIS status was made to avoid demographic differences between intervention and control groups, which could have confounding effects which may threaten internal validity (Elkins, 2015). There was a greater

number of non-DEIS schools, with larger student populations, in the researcher's geographic location. Research suggests that eating disorders and body dissatisfaction are prevalent amongst all socioeconomic backgrounds (Huryk et al., 2021; Larson et al., 2021).

The decision as to which school would be the intervention group and which would be the control group was based on logistics. Primarily, the availability of the school to participate in the 4-week programme. Thus, 19 participants ($n=8$ males, $n=10$ females and $n=1$ participant who did not disclose their gender) were allocated to the intervention group and 19 participants ($n= 13$ males and $n=6$ females) were allocated to the control group.

The Transition Year Co-Ordinators in both schools identified the LCPE Class as a suitable group to deliver the intervention to as the topic of body image relates to the LCPE curriculum.

Once the two schools were recruited, parent(s)/guardian(s) of all potential participants were sent an information sheet about the study and an informed consent form to sign. All parent(s)/ guardian(s) gave their written consent.

The researcher visited the schools to provide students with information about the study. Each student was given an information sheet, which the researcher read aloud to the class (See Appendix K). Before giving their written assent, the voluntary nature of the study was made clear to the students. All students agreed to participate. Table 11 shows the dates that participants completed measures.

Table 11

Data Collection Dates

Group	Baseline Measures	Post-intervention Measures
Intervention	20/04/2023	08/05/2023
Control	18/04/2023	09/05/2023

The intervention group participants completed baseline measures on the 20/04/23 and post-intervention measures on the 08/05/23. The waitlist control group completed measures on the 18/04/23 and again on the 09/05/23 before participating in the one-day intervention.

3.11.5.1 Intervention Group. The intervention group took part in the Body Project during their usual LCPE class time in their usual classroom, with their LCPE teacher present. Participants gave their written informed assent and completed baseline measures on 20/04/23. They completed the intervention across four sessions between the 24/04/23 and the 08/05/23. Details of the intervention can be seen in Table 12.

Table 12*Intervention Details*

Session	Date	Content	Explanation
1	24/04/23	<p>Definition and Origin of the Appearance Ideal.</p> <p>Costs Associated with Pursuing the Appearance Ideal.</p> <p>Home Exercises: Letter to an Imaginary Younger Person. Mirror Exercise.</p>	<p>Defining appearance ideals throughout history and exploring differences in appearance ideals for cultural and sexual and gender minority groups.</p> <p>Reflecting on the detrimental effects of striving to obtain appearance ideals</p> <p>Letter writing to discourage the pursuit of appearance ideals</p> <p>Acknowledging and appreciating one's own positive physical attributes and positive qualities.</p>
2	27/04/23	<p>Costs of Pursuing the Thin Ideal Letter Debriefing. Mirror Exercise Debriefing.</p> <p>Role Plays to Discourage Pursuit of the Appearance Ideal.</p> <p>Home Exercises: Community Interview.</p> <p>Top 10-List.</p>	<p>Whole group discussions.</p> <p>Discouraging pursuit of appearance ideals through role play with peers.</p> <p>Interviewing others to gain insight into negative effects of pursuing appearance ideals.</p> <p>Identifying 10 ways to challenge appearance standards through social activism</p>

3	04/05/23	Community Interview Debriefing. Top 10 List Debriefing.	Whole group discussions.
		Quick Comebacks to Appearance ideal Statements.	Challenging appearance related discourse through role play with peers.
		Behavioural Challenge.	Participants identify things they would like to do but do not currently do because of appearance ideal standards.
		Home Exercises: Behavioural Challenge Exercise	Undertaking personal behaviour challenges related to the above.
		Body Activism.	Taking part in social activism efforts aimed at challenging appearance standards.
4	08/05/23	Self-Affirmation Exercise. Behavioural Challenge Debriefing. Body Activism Debriefing. Discussion of Benefits of Group. Closure.	Participants identify two ways in which they will continue to take a stand against appearance ideals in the future. Whole group discussions.

Outcome measures were completed immediately post-intervention on the 08/05/23. Additionally, post-intervention, participants rated their enjoyment of the intervention on a visual 5-point Likert scale (1= *really did not enjoy it* to 5 = *really enjoyed it*). Enjoyment was measured as it is an indicator of sustained engagement and it has been identified as a factor that can mediate intervention effectiveness in post-primary school settings (Dishman et al. 2005; Kwasnicka et al., 2016).

3.11.5.2 Control Group. The control group gave their written informed assent and completed measures on the 18/04/23. They then completed the same measures on the morning of the 09/05/23, immediately before taking part in the condensed one-day workshop of the Body Project. The same intervention procedures were followed as for the intervention group with minor adaptations to the home exercises. More specifically, three of the home exercises (Letter writing; Interviews; and the Top-10 list) were carried out in the workshop setting rather than as homework. Participants completed the workshop in their LCPE class group, in their usual LCPE classroom with their LCPE teacher present.

3.11.6 Measures

The primary measures in the current study were appearance ideal internalisation and body appreciation. Intervention enjoyment was a secondary measure employed. The primary measures employed can be viewed in Table 13.

Table 13*Primary Measures Employed*

Name	Description	Test-Retest Reliability
Sociocultural Attitudes Towards Appearance Questionnaire Revised (SATAQ- R 4; Schaefer et al., 2017).	A 22-item self-report measure of internalisation of appearance ideals (i.e., personal acceptance of societal ideals) and appearance pressures (i.e., pressures to achieve the societal ideal).	(α .84).
Body Appreciation Scale 2 (BAS-2; Tylka & Wood-Barcalow, 2015b).	A 10-item positive body image self-report scale that measures participants' appreciation of favourable opinions toward, and respect for their bodies.	(α .93).

3.11.6.1 Appearance Ideal Internalisation. The Sociocultural Attitudes Towards Appearance Questionnaire Revised (SATAQ- R 4; Schaefer et al., 2017) was used to measure appearance ideal internalisation (See Appendix M). The SATAQ-R 4 has high test-retest reliability (α .84). () It has good consistency across males and females (α 0.75-0.96) and has good construct validity. Importantly, it has been shown to be reliable amongst adolescent samples (Schaefer et al., 2017). Moreover, the SATAQ-R 4 is in line with the DTE (Piran & Teall, 2012; Piran, 2017) protective factors as it measures one's critical stance towards societal pressures to conform to appearance ideals.

3.11.6.2 Body Appreciation. The Body Appreciation Scale 2 (BAS-2; Tylka & Wood-Barcalow, 2015b) was used to measure positive body image (See Appendix L). The

BAS-2 shows consistency across sex and sample types. It has high internal consistency ($\alpha .96$) and high construct validity amongst both males and females, adolescents, college students, and community samples across several western countries (Tylka & Wood-Barcalow, 2015b). Importantly, it has strong test-retest reliability ($\alpha .93$) in the current study

Regarding validity, the BAS-2 scores are positively related to self-compassion, which is in line with the Mental Freedom domain of the DTE (Wasylikiw et al., 2012; Piran, & Teall 2012; Piran, 2017). Furthermore, the BAS-2 scores are positively related to interoceptive eating, that is eating according to physical hunger and satiety cues, which is another key protective factor against eating disorder development (Oswald et al., 2017; Tylka & Wood-Barcalow, 2015b).

3.11.6.3 Participant Enjoyment. Following intervention completion, participants in the intervention group were asked to rate their enjoyment of the intervention using a visual 5-point Likert scale measure from 1 (*really did not enjoy it*) to 5 (*really enjoyed it*). See Appendix N.

3.12 Results

The Results section will first present the descriptive statistics pertaining to the variables of appearance ideal internalisation and body appreciation. It will then outline the findings of the primary statistical analyses, followed by the findings of the secondary statistical analyses.

3.12.1 Descriptive Statistics

Descriptive statistics for the appearance ideal internalisation and body appreciation scale responses are presented in Table 14.

Table 14*Mean and Standard Deviation*

Variable	Group	Baseline	Post-test
Appearance Ideal	Intervention	$M=2.5124, SD=.13754$	$M=2.5888, SD=.12515$
Internalisation	Control	$M=2.7682, SD=.14797$	$M=2.7088, SD=.14300$
Body Appreciation	Intervention	$M=3.8706, SD=.18763$	$M=4.0588, SD=.12129$
	Control	$M=3.5647, SD=.19572$	$M=3.5176, SD=.22183$

The descriptive statistics indicate that participants had relatively acceptable levels of both appearance ideal internalisation and body appreciation at baseline, and that little changed occurred as a result of the intervention. A slight increase in body appreciation for the intervention group is observed at post-test, but this is not statistically significant.

3.12.2 Primary Analyses

3.12.2.1 Intervention Effects on Dependent Variables. Two 2x2 Mixed ANOVAs were conducted to compare the main effects of time (baseline and post-intervention) and group (intervention group and waitlist control group) and the interaction effect between time and group on the dependent variables (appearance ideal internalisation and body appreciation) at baseline and post-intervention. The assumption of sphericity was met since there were just two levels of repeated measures (Field, 2013). Effect sizes were calculated with η^2 and Cohen's (1988) benchmarks for small ($\eta^2 = .01$), medium ($\eta^2 = .06$) and large ($\eta^2 = .14$) effects were used.

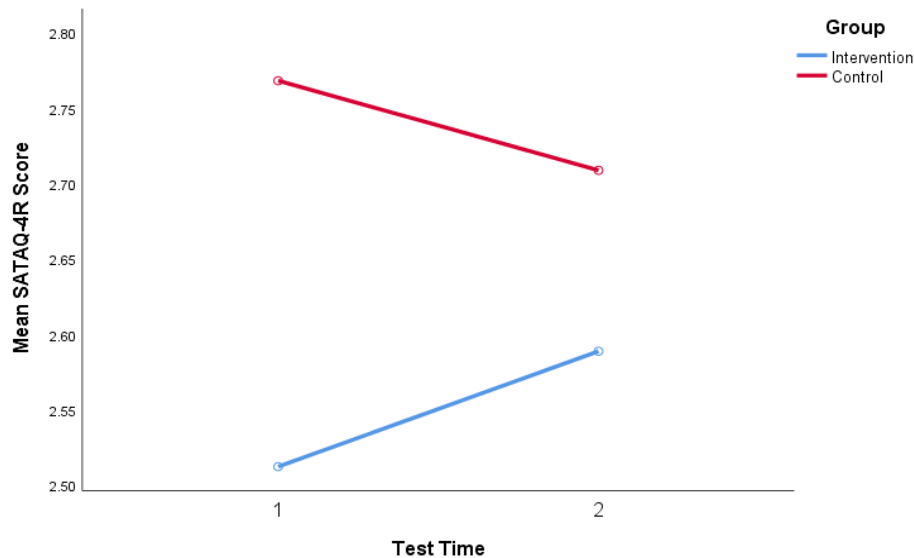
3.12.2.2 Research Question 1 Does the Body Project reduce appearance ideal internalisation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools? The null hypothesis is that the Body Project will not reduce appearance ideal internalisation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools. The alternate hypothesis is that the Body Project will

reduce appearance ideal-internalisation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools.

A 2x2 Mixed ANOVA was conducted to see if there was a significant change in appearance ideal internalisation scores from baseline to post-intervention, across two different groups: intervention group and waitlist control group (See Figure 5).

Figure 5

Intervention Effect on Appearance Ideal Internalisation



Levene's test of equality of variance was not significant, indicating homogeneity of variance. The results of the ANOVA indicated that there was not a significant main effect of time, from time 1 ($M = 2.64$, $SD = .59$) to time 2 ($M = 2.65$, $SD = .55$; $F(1, 32) = .00$, $p = .947$, $\eta^2 = .000$). There was no significant main effect of group type, $F(1, 32) = 1.59$, $p = .217$, $\eta^2 = .047$. There was no interaction of time and group type $F(1, 32) = .29$, $p = .597$, $\eta^2 = .009$.

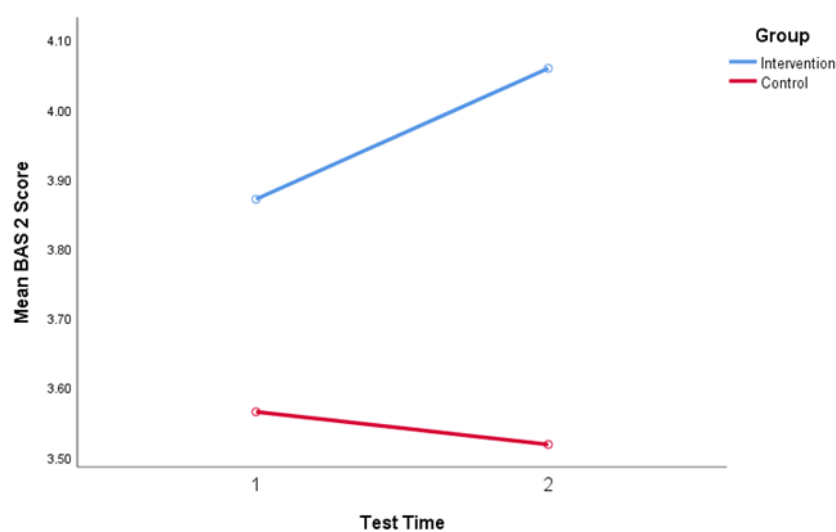
3.12.2.3 Research Question 2 Does the Body Project increase body appreciation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools? Does the Body Project increase body appreciation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools? The null hypothesis is

that the Body Project will not increase body appreciation when delivered as a universal, whole-class, intervention in co-educational Irish post-primary schools. The alternate hypothesis is that the Body Project will increase body appreciation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools.

A 2x2 mixed ANOVA was conducted to see if there was a significant change in body appreciation scores from baseline to post-intervention, across two different groups: intervention group and waitlist control group (See Figure 6).

Figure 6

Intervention Effect on Body Appreciation



Levene's test of equality of variance was not significant, indicating homogeneity of variance. The results of the ANOVA indicated that there was not a significant main effect of time, from baseline ($M = 3.72.17$, $SD = .79$) to post-intervention ($M = 3.79$, $SD = .78$; $F(1, 32) = .125$, $p = .726$, $\eta^2 = .004$). There was a significant main effect of group type, $F(1, 32) = 6.243$, $p = .018$, $\eta^2 = .163$. There was no interaction of time and group type $F(1, 32) = .346$, $p = .560$, $\eta^2 = .011$.

3.12.3 Secondary Analyses

3.12.3.1 Participant Enjoyment. A Frequency analysis was carried out to analyse the Likert scale data measuring participant enjoyment of the intervention. Results for the 5-point Likert scale data, which measured from 1 (*really did not enjoy it*) to 5 (*really enjoyed it*) are shown in Table 15. Descriptive statistics for participant enjoyment are presented in Table 16.

Table 15

Participant Enjoyment Frequency

Enjoyment Rating (1-5)	Frequency	Percentage
Really enjoyed it (5)	4	23.5%
Enjoyed it (4)	11	64.7%
Not sure (3)	2	11.8%

Table 16

Participant Enjoyment Mean and Standard Deviation

Mean Enjoyment Rating	Standard Deviation
4.12	6.00

3.12.3.2 Gender Differences in Appearance ideal internalisation. A 2x2 Mixed ANOVA was conducted to see if there was a significant change in female's appearance ideal internalisation scores from baseline to post-intervention, across two different groups: intervention group and waitlist control group. Levene's test of equality of variance was not significant, indicating homogeneity of variance. The results of the ANOVA indicated that there was not a significant main effect of time, from time 1 ($M = 2.66, SD = .68$) to time 2 ($M = 2.74, SD = .48; F(1, 13) = .131, p = .723, \eta^2 = .040$). There was no significant main effect

of group type, $F(1, 13) = 0.23, p = .882, \eta^2 = .002$. There was no interaction of time and group type $F(1, 13) = 2.60, p = .540, \eta^2 = .030$.

A 2x2 Mixed ANOVA was conducted to see if there was a significant change in male's appearance ideal internalisation scores from baseline to post-intervention, across two different groups: intervention group and waitlist control group. Levene's test of equality of variance was not significant, indicating homogeneity of variance. The results of the ANOVA indicated that there was not a significant main effect of time, from time 1 ($M = 2.60, SD = .53$) to time 2 ($M = 2.64, SD = .63; F(1, 17) = 0.58, p = .812, \eta^2 = .003$). There was a significant main effect of group type, $F(1, 17) = 5.50, p = .031, \eta^2 = .245$. There was no interaction of time and group type $F(1, 17) = .003, p = .957, \eta^2 = .000$.

3.12.3.3 Gender Differences in Body Appreciation. A 2x2 mixed ANOVA was conducted to see if there was a significant change in female's body appreciation scores from baseline to post-intervention, across two different groups: intervention group and waitlist control group. Levene's test of equality of variance was not significant, indicating homogeneity of variance. The results of the ANOVA indicated that there was not a significant main effect of time, from baseline ($M = 3.38, SD = .76$) to post-intervention ($M = 3.75, SD = .64; F(1, 13) = 2.27, p = .156, \eta^2 = .149$). There was no significant main effect of group type, $F(1, 13) = 1.62, p = .226, \eta^2 = .111$. There was no interaction of time and group type $F(1, 13) = 1.75, p = .209, \eta^2 = .118$.

A 2x2 mixed ANOVA was conducted to see if there was a significant change in male's body appreciation scores from baseline to post-intervention, across two different groups: intervention group and waitlist control group. Levene's test of equality of variance was not significant, indicating homogeneity of variance. The results of the ANOVA indicated that there was not a significant main effect of time, from baseline ($M = 4.01, SD = .75$) to post-intervention ($M = 3.78, SD = .90; F(1, 17) = .490, p = .494, \eta^2 = .028$). There was a significant

main effect of group type, $F(1, 17) = 6.32, p = .022, \eta^2 = .271$. There was no interaction of time and group type $F(1, 17) = .005, p = .944, \eta^2 = .000$.

3.13 Discussion

The discussion section will sequentially outline the research questions posed and summarise the current findings. The overarching literature will be drawn together and discussed holistically with reference to both research questions. Strengths and limitations of the present study will be examined. Implications of the findings will be delineated. The discussion will serve as a foundation for further in-depth exploration of the findings in the Critical Review Paper which follows.

Two primary research questions were posed. The first research question was: Does the Body Project reduce appearance ideal internalisation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools? The Body Project was not found to be effective in reducing appearance ideal internalisation when delivered as a universal, whole-class, positive body-image intervention in a co-educational Irish post-primary school in the current study. Therefore, the null hypothesis was retained.

The second research question was: Does the Body Project increase body appreciation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools? The Body Project did not significantly increase body appreciation when delivered as a universal, whole-class, positive body-image intervention in a co-educational Irish post-primary school in the current study. Thus, the null hypothesis was retained.

The current study is the first to investigate the effectiveness of the Body Project as a whole-class, universal, mixed-gender positive-body image intervention. There are several factors to consider in order to support our interpretation of the current findings.

Firstly, the whole-class, large group size may have limited participants' opportunities for dissonance induction in the current study. The Body Project intervention comprises a series of exercises in which participants must verbally argue against, and behaviourally challenge the appearance ideal. Thus, participants engage in counter-attitudinal activities, which lead to cognitive dissonance for those who had internalised the appearance ideal, and in turn diminishes their belief in this ideal to align with their actions. Butryn et al. (2014) highlight that delivering the Body Project intervention in a small group setting offers participants increased opportunities for active engagement in counter-attitudinal activities, which are key to the induction of cognitive dissonance. Therefore, delivering the Body Project as a whole-class intervention may have reduced individual engagement in the programme exercises and thus limited the cognitive dissonance experienced by participants. In addition, as many students strive to impress their teachers, the presence of the Class Teacher during the sessions may have increased participant's reluctance to discuss sensitive topics (Roorda et al., 2011).

Regarding the evaluation of the Body Project in the post-primary school setting, research shows that the Body Project can effectively increase body appreciation and reduce appearance ideal internalisation when delivered as a small-group, selective intervention for females with body image concerns in post-primary school settings (Amaral et al., 2019; Stice et al., 2009;2011). In addition, preliminary research suggests that female post-primary students in the UK may find the Body Project to be acceptable (Jarman et al., 2021), and that it may be effective in reducing appearance ideal internalisation as a small-group, universal intervention for girls in a UK post-primary school setting (Halliwell & Diedrichs, 2014). However, the current study is the first to the researcher's knowledge to deliver the Body Project in a whole class setting.

Secondly, universal delivery can reduce the scope for dissonance induction due to floor effects as participants may already have acceptable levels of positive body image at baseline (Watson et al., 2016; Kusina & Exline, 2019). In the current study, participants had relatively acceptable levels of appearance ideal internalisation and body appreciation at baseline. This may have been due to the Leaving Certificate Physical Education (LCPE) class sample in the current study. Physically active individuals may have higher baseline positive body image than the general population as physical exercise is negatively associated with body dissatisfaction and positively associated with higher positive body image (Sabiston et al., 2019; Gualdi-Russo et al., 2022). Indeed, the Developmental Theory of Embodiment (DTE; Piran, 2012; 2017) highlights the enjoyment of physical activity as a protective factor for positive body image as it is thought to increase one's experience of embodiment.

Some sport-specific, dissonance-based positive body image interventions for adolescent female athletes have shown reductions in appearance ideal internalisation (Hirsch et al., 2021; Stewart et al., 2022). However, a non-controlled pilot study of the Youth Athlete Body Project a sports, age and sex adapted version of the Body Project for use as a universal, single-sex, small-group intervention in a Norwegian sport-specialised post-primary school, found that participants had high body appreciation at baseline and that significant changes did not occur as a result of the intervention (Sundgot-Borgen et al., 2024). These findings are consistent with those of the current study and suggest that there may be reduced scope for dissonance when participants have acceptable levels of positive body image at baseline.

Thirdly, being recruited as part of a school class may have impacted on participant's autonomous motivation to engage with the Body Project programme. Although participants in the current study gave their informed assent to participate, they did not self-refer to the programme. Autonomous motivation increases engagement and learning outcomes (Guay et al., 2016). According to Self-Determination Theory (SDT; Deci & Ryan, 1985; Ryan & Deci,

2017), competence, autonomy and relatedness are crucial psychological needs that drive individuals to actively seek challenges, remain curious and engaged, and cultivate and express their abilities. A Meta-Analysis conducted by Bureau et al. (2021) highlights the key role of competence, autonomy and relatedness in autonomous motivation. Competence involves a sense of efficacy, the feeling of improving skills in tasks that are appropriately challenging and contribute to personal growth. Autonomy, on the other hand, refers to a sense of self-direction and integrity, where one's actions feel genuine and self-determined rather than conflicted or pressured internally or externally coerced. Relatedness is described as the necessity for a sense of connection and care from others, which provides adaptive benefits for survival through sharing vital resources and protection from threats. As participants in this study did not self-refer to the programme, they may not have experienced a strong sense of autonomy, which could have reduced their autonomous motivation to engage in the programme to the best of their ability.

Fourthly, the single-facilitator delivery of the intervention in the current study may have negatively affected the effect sizes. A meta-analysis of dissonance-based eating disorder prevention programmes found that intervention effect sizes were largest when there were two or more programme facilitators (Stice et al., 2019). Additionally, pre-recorded demonstrations for the role-play tasks that require modelling used in the current study have not been piloted; therefore, it is unknown if this may have negatively impacted intervention effectiveness.

Finally, there is contrasting evidence for the effectiveness of mixed-gender dissonance-based interventions in reducing appearance ideal internalisation and increasing body appreciation. In the current study the script was adapted to address all genders. Therefore, many of the examples provided throughout the sessions did not target gender-specific appearance ideals. As such, in-session time was spent discussing examples which

may have been less relevant to individuals in the group. This may have negatively impacted the effectiveness of the intervention. Additionally, in the current study, small discussion groups were mixed-gender. Having same-sex small discussion groups may have allowed participants to focus discussions on the appearance-ideals that are most relevant to them and thus potentially increase intervention effectiveness. In addition, participants may have experienced reluctance to discuss the sensitive topic of positive body image with their classmates of an opposite gender. Yager et al. (2013) report that females with high levels of body dissatisfaction prefer to participate in body image research with female-only co-participants.

To the researcher's knowledge, only two studies to-date have evaluated adaptations of the Body Project as a mixed-gender intervention. A pilot study of the two-session, small-group, Body Project for All intervention (Kilpela, 2016) showed some beneficial effects for males' body satisfaction; however, it did not report positive effects for females. The Body Project for All was not found to significantly reduce appearance ideal internalisation for participants and body appreciation was not measured. The EveryBody Project (Ciao et al., 2018) an adapted version of the Body Project focused on diversity and delivered as a universal, university-based, small-group intervention was found to be effective in reducing appearance ideal internalisation for participants (Ciao et al., 2021). Body appreciation was not measured. Although universal, 80% of participants were female. As such, the majority of the intervention groups were unintentionally female-only or included just one to two males in groups of eight to nine participants. Therefore, more research is needed to confirm the effectiveness of the Body Project for mixed gender delivery.

Dissonance-based body image interventions, other than the Body Project, have been evaluated for universal, whole-class, mixed-gender delivery. To the researcher's current knowledge, the effect of universal, whole-class, mixed-gender dissonance-based body image

interventions on body appreciation has only been evaluated by one study. Regehr et al. (2020) piloted Free to Be, a dissonance-based, universal, whole-class, mixed gender, positive body image intervention in Canadian schools. Participants did not report increases in body appreciation compared to the control group. This aligns with the findings of the current study.

There is some literature evaluating the impact of dissonance-based, universal, whole-class body image interventions on appearance ideal internalisation. Happy Being Me is an Australian dissonance-based body image programme originally designed for females (Richardson & Paxton, 2010). The Happy Being Me programme was found to reduce appearance ideal internalisation when delivered as a whole-class intervention for both female-only, and mixed-gender cohorts in Australian post-primary schools (Dunstan et al., 2017). However, there are conflicting findings regarding the efficacy of the Happy Being Me programme for whole-class, mixed-gender delivery in the UK. One study found it to be effective in reducing appearance ideal internalisation for males, but not females (Bird et al., 2013), and another found it did not significantly reduce appearance ideal internalisation for participants regardless of gender (Stewart et al., 2022). In 2015, the Happy Being Me programme was adapted in collaboration with Dove to create a new programme suitable for mixed-gender delivery in the UK, titled Dove Confident Me (Diedrichs et al., 2015). An initial one-session version of the programme did not reduce appearance ideal internalisation when compared to a lesson-as-usual control. The Dove Confident Me intervention was further developed to create a 5-session programme; however, it was still not found to be effective in reducing appearance ideal internalisation compared to a lesson-as-usual control group when delivered in mixed-gender classrooms (Diedrichs et al., 2021). These outcomes are in line with those of the current study.

A systematic review by Yager et al. (2013) evaluated universal body image intervention programmes in post-primary schools and concluded that the most effective

programmes targeted participants with higher-risk status. A more recent meta-analysis examining school-based body image interventions, suggests that selective, single-sex interventions show greater effects than universal interventions (Kurz et al., 2022). This is in line with Guest et al.'s (2022) systematic review of positive-body image interventions, which did not find mixed-gender interventions to be effective, and Chua et al.'s (2020) systematic review and meta-analysis of universal eating disorder prevention interventions in improving body image for children and young people, which found that gender-specific interventions were most effective in reducing internalisation of appearance ideals. Overall, these findings are consistent with those of the current study and suggest that dissonance-based body image programmes may not be effective in reducing appearance ideal internalisation when delivered in universal, whole-class, mixed-gender settings.

An interesting finding in the current study was that there was a significant main effect of group type amongst males for both appearance ideal internalisation and body appreciation. Males in the control group had significantly lower levels of appearance ideal internalisation and higher levels of body appreciation than males in the intervention group at both baseline and post-test. However, it is important to interpret these findings with caution as these analyses were statistically underpowered. As this was a small-scale study, it is possible that there were contextual confounding variables that may have resulted in this finding. The control group had received a positive body image talk from BodyWhys the Eating Disorder Charity of Ireland, whilst the intervention group had not. It is possible that this may have increased positive body image levels amongst males in the control group, but not amongst females.

Moreover, it is important to consider the risk of response bias in the current study (Wetzel et al., 2016). As the researcher was the interventionist and also collected the data directly from participants, there is a risk that participants may have given responses that they

believed to be favourable to the researcher rather than responding naturally. This may have impacted on the current findings.

Regarding the suitability of the measures employed, the SATAQ-4R (Schaefer et al., 2017) comprises seven subscales. The male appearance ideal is mesomorphic/muscular rather than thin (Baghurst et al., 2006). Therefore, it is possible that the ideal *Internalisation: Thin/Low Body Fat* subscale may have had less relevance to some male participants, thus potentially impacting findings.

3.13.1 Methodological Strengths and Limitations of the Current Study

A summary of the methodological strengths and limitations of the current study can be viewed in Table 17. These are discussed in further detail in the Critical Review paper which follows.

Table 17

Methodological Strengths and Limitations of the Current Study

Strengths	Limitations
Appropriate study design.	No randomization.
Sufficient power.	Inactive waitlist control group employed.
Low rate of attrition.	LCPE student sample is a possible confounding variable.
Trained intervention facilitator.	
Appropriate measures employed.	

3.13.2 Fidelity

The current study is the first evaluation of the Body Project in the Irish context. Research suggests that the Body Project may be culturally adaptive and effective across different cultures and ethnicities (Resende et al., 2022; Casasnovas et al., 2021; Unikel-Santoncini et al., 2019; AlShebali et al., 2022; Stice et al., 2014; Stice et al., 2021). The

current study was adapted for universal, whole-class, mixed gender delivery (See Table 10). Research suggests that the Body Project is robust to adaptations for gender and sexuality. An adapted version of the intervention for young men, the Body Project: More than Muscles, has been found to reduce appearance ideal internalisation in a US Randomised Control Trial (RCT), and to increase body appreciation in Brazilian RCTs (Brown et al., 2017; Almeida et al., 2021). Another adapted version of the intervention, the Body Project M, has been found to reduce appearance ideal internalisation and increase body appreciation in a pilot study (Jankowski et al., 2017). A version of the Body Project adapted for gay men was found to reduce body ideal internalisation (Brown & Keel, 2015). These adaptations were found to have high retention rates and acceptability. Due to limited resources and time-constraints associated with the DECPsy programme, the current study did not pilot the adapted Body Project intervention for universal, whole-class mixed gender delivery. However, the mixed-gender adaptations made in the current study were informed by Kilpela et al. (2016), who conducted focus groups to inform their adaptations to the traditional female-only script. The adapted script intervention retained all activities, structure, time allocation, and format as the traditional script. Additional minor adaptations were made in the current study to support whole-class, single-facilitator delivery in line with Universal Design for Learning in the classroom (Hall, 2012). Changes made to the script can be seen in Table 10.

In addition, the intervention was delivered within an accelerated time-frame due to the availability of the participating schools. In the current study, the intervention was delivered over a 3-week period, rather than the recommended 4-week period (See Table 10 for session dates). This may have reduced the impact of the programme as participants may have had less time to complete the home exercises and to reflect on the content between sessions.

3.13.3 Key Implications and Future Research Recommendations

The current study makes a novel contribution to the literature in the fields of eating disorder prevention and positive body image. It is the first study to evaluate the effectiveness of the Body Project (Stice et al., 2006) as a universal, whole-class, mixed-gender intervention. In addition, it is the first study to evaluate the Body Project in the Irish context.

Regarding research, the current study offers preliminary novel findings which suggest that the Body Project may not be effective as a universal, whole-class positive body image intervention in Irish co-educational post-primary schools. A key contribution of this study to is that it provides an independent evaluation of the Body Project programme. The involvement of the programme creator in much of the high-quality evaluative research to date increases the risk of confirmation bias (Lo & Field, 2009; Ahn et al., 2017).

Regarding policy, the present study suggests that effective, evidence-based positive body image interventions may be suitable for incorporation into the senior cycle post-primary school curriculum as part of the LCPE or SPHE subjects, or as part of the Transition Year programme. Further research is needed to identify effective positive body image programmes. The preliminary findings of this study indicate that the Body Project was not effective in increasing positive body image when delivered as a whole-class, universal intervention in a co-educational Irish post-primary school. This underscores the importance of ensuring fidelity in the delivery of evidence-based school-based programmes. Policymakers should monitor fidelity and regularly assess the effectiveness of school-based intervention programmes to guide future policy decisions. Importantly, the current preliminary findings do not provide evidence to support the effectiveness of the Body Project as a universal, whole-class positive body-image intervention. Therefore, at present, the Body Project should be considered as a selective, small group intervention at the Support for Some

tier of the Continuum of Support (NEPS, 2010) within post-primary school settings, rather than as a universal intervention at the Support for All tier (See figure 1).

Regarding Educational and Child Psychology practice, the preliminary findings of this study indicate that Irish post-primary students enjoyed the Body Project intervention. Therefore, future research should explore the effectiveness and acceptability of the Body Project in Irish post-primary schools if delivered per the original manual as a selective, small group, single-sex intervention (Stice et al., 2006).

A significant finding of this study is that participants' level of positive body image was maintained. Concerns have been voiced among early eating-disorder prevention efforts regarding unintentional harmful side effects (O'Dea, 2000). The current results attest that participants' positive body image was not damaged by their participation in the Body Project as a universal, whole-class positive body image intervention. This finding lends support to previous research that body image interventions do not cause unintentional negative outcomes for participants (Fingeret, 2006; Berger et al., 2014; Dunstan et al., 2017). This finding is crucial as it indicates the universal positive body image interventions can be ethical and sets the stage for future ethical research in the field of positive body image among adolescent populations.

Furthermore, the present study offers valuable insights that can guide future research in this field. In order to follow the 4-Session Body Project intervention guidelines with fidelity, future research should employ two facilitators to deliver the intervention. This would allow for in-person modelling of tasks (e.g. role play) and support the management of small-group discussions. In addition, future studies may employ a researcher other than the interventionists to collect the baseline and post-test data to reduce risk of response bias. It is also important that future research deliver the programme over 4-weeks to avoid time-related

confounding variables. As the LCPE sample was a confounding variable in the current study, future research should strive to recruit a more generalisable sample. Furthermore, to increase the relevance of the programme to a mixed-gender cohort, future researchers may consider allocating participants to single-sex small groups within the co-educational classroom setting for appearance-ideal related discussion topics throughout the intervention sessions.

4 Critical Review

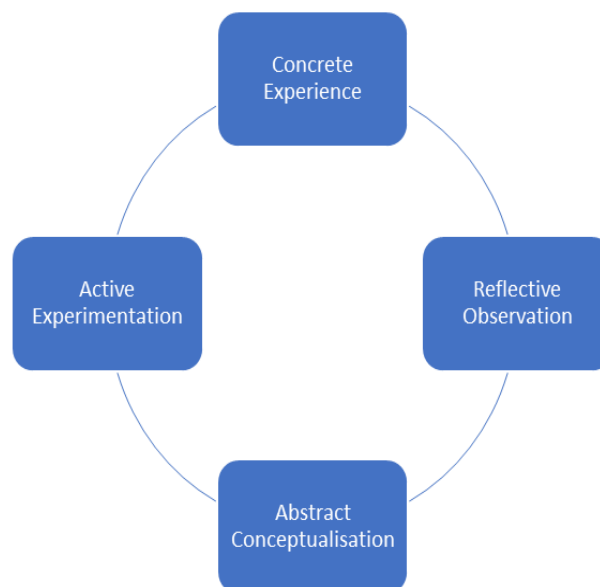
4.1 Introduction

The final chapter of this thesis encompasses a critical review of the current study. It begins with a personal reflection on the research process. Subsequently, an account of the adopted research paradigm and the theoretical framework underpinning the research is offered. Following this, the strengths and limitations of the study are critically reviewed. Ethical considerations are also deliberated upon. The implications of the research findings with regard to research, policy and practice are presented. Finally, the chapter concludes with an impact statement, emphasising the impact of the current research both inside and outside of academia, within the field of Educational and Child Psychology.

4.2 Personal Reflection on the Research Process

Figure 7

Kolb's Model of Experiential Learning (1984)



Concrete Experience

My interest in the Body Project first began when I had the opportunity to participate in the programme, which was run by the Mary Immaculate College counselling service during my first year of professional training. Although I did not fit the target age for the Body Project programme, I personally enjoyed participating and believed that it challenged my attitude towards appearance ideals. When I was offered the opportunity to train as a facilitator of the programme, I eagerly accepted, seeing it as valuable for my future practice as an Educational and Child Psychologist.

Indeed, I decided to focus my doctoral research on the topic as I was aware of the need for positive body image interventions for adolescents in Ireland. Moreover, I knew that some post-primary teacher training colleges in Ireland were offering the Body Project facilitator training with the view of delivering the programme in schools. Therefore, I believed it was crucial to establish an evidence base for the programme in Irish post-primary school settings.

The first step in the research process was to conduct a systematic literature review exploring the impact of the Body Project intervention on positive body image and appearance ideal internalisation. The results of the systematic review reflected the Body Projects' robust evidence base in reducing appearance ideal internalisation and increasing body appreciation when delivered as a female-only, selective intervention. The systematic review also highlighted a dearth of high-quality research evidencing the effectiveness of the intervention when delivered universally, in a large-group, or in mixed gender settings. Thus, I designed a study to evaluate this. I made minor adaptations to the 4-session Body Project script to deliver the intervention in a whole-class, mixed-gender setting as a single facilitator (See Table 10). The gender adaptations were informed by Kilpela et al. (2016) who employed focus groups to inform adaptations for mixed-gender delivery. The session format structure,

time allocation, and activities were retained from the traditional 4-session Body Project script. The adaptations for single-facilitator, whole-class universal delivery were guided by the Universal Design for Learning principles for the classroom using multiple means of representation to promote all students' ability to access the programme (Hall et al, 2012).

I obtained ethical approval from Mary Immaculate College Research Ethics Committee. I then began the recruitment process, which proved challenging. I believe this was due to a culture of fear around discussing body image as one school declined to participate stating that they were concerned they would be “opening Pandora’s box” by discussing body image. I contacted many schools before finding two that were interested in participating in the study. Once I had managed to recruit schools, I delivered the programme as a single facilitator and collected the data. I then analysed the data and finally, I interpreted the findings.

Reflective Observation

I have enjoyed research since my undergraduate degree and was excited to embark on a new research project. As I was passionate about the Body Project programme, I was looking forward to delivering the programme in post-primary schools. However, I became disillusioned when the recruitment process proved difficult. Although I had taken a positive-body image approach and thus ensured the measures employed did not assess negative body image, schools still voiced concerns regarding the potential risk of harm to students. This is understandable as there have been expressions of concern regarding potential unintended adverse effects of eating disorder prevention programmes (O’Dea, 2000). Therefore, the current study’s finding that participants maintained current levels of positive body image and thus the intervention did no harm is pertinent. This finding may support post-primary schools in feeling safe to broach the subject of body image, which is especially

important as body image is a topic included in the LCPE and senior cycle SPHE curriculum areas (NCCA 2011; NCCA 2018).

During the recruitment phase, it became evident that all participants would be Leaving Certificate Physical Education (LCPE) students. This became an additional study variable. As the intervention was incorporated into the LCPE class schedule, there was limited flexibility to accommodate students who had missed part of the intervention due to school absences. Therefore, some participants were lost to attrition.

Initially, I felt apprehensive delivering the intervention as I lacked prior experience working in a post-primary school and delivering group interventions. However, I found that I had transferable skills from previous voluntary and work experiences. Yet, having the Class Teacher present in the classroom throughout the intervention sessions proved valuable. The teacher was able to provide additional support to students with special educational needs and manage classroom behaviour, in addition to fulfilling a protective safeguarding role. It was challenging to facilitate several small groups at once during the intervention activities (i.e. role plays) as a single facilitator in the whole-class setting. Related to this, there were times when some students did not participate to the best of their ability and engaged in chat or jokes amongst peers instead.

It is important that the participants reported enjoying the intervention. Exploring the participants' experiences of engaging in the programme would have been insightful, though it fell beyond the scope of the current study. Within the DECPSy timeframe, the current study design was deemed to make sufficient contribution to the literature. Employing a mixed-methods approach in the future may yield valuable insights which could inform the delivery of positive body image interventions in post-primary schools.

Although I was initially disappointed to discover that participants' positive body image had not improved as a result of the intervention, I now recognise the value of the study outcomes. The findings address the research-to-practice gap in school psychology and contribute to the knowledge base informing the implementation of the Body Project in Irish post-primary schools (Hagermoser Sanetti & Collier-Meek, 2019).

Abstract Conceptualisation

Looking back on my initial apprehension to deliver the programme, I now recognise that I was experiencing imposter syndrome (Clance & Imes, 1978). This was likely due to my lack of experience in delivering whole-class interventions in post-primary school settings as a Trainee Educational and Child Psychologist.

Upon reflection, there are many reasons why the intervention may not have been effective when delivered as a universal, whole-class, mixed-gender intervention in an Irish post-primary school. As a single researcher constrained by limited time and resources, it was not feasible to isolate the variables in this study. Future research should investigate this further.

Stice et al. (2019) found that effect sizes are larger when there are two or more facilitators leading dissonance-based interventions. They hypothesise that having more facilitators theoretically enhances management of session activities and participants' engagement. This is in line with the challenges I experienced in managing several groups at once during intervention activities as a single researcher. In addition, participants in the current study may not have engaged in the programme to the best of their ability as they did not self-refer to the programme and thus may not have experienced a strong sense of autonomy, which may have reduced their intrinsic motivation (Ryan & Deci, 2017). Additionally, given the classroom setting, peers may have been conscious of others seeing

their questionnaire answers and thus social desirability bias may have impacted on the findings in the current study. Social desirability bias is a response bias which defines the inclination of participants to give responses that will be regarded as favourable (Paulhus, 1984).

It is possible that the Body Project may not be effective in increasing positive body image when delivered in mixed-gender settings. Current findings are in line with previous pilot study research which suggests that the mixed-gender delivery of the Body Project does not reduce appearance ideal internalisation (Kilpela et al., 2016). However, these outcomes are conflicting with Ciao et al.'s (2021) finding that a mixed-gender delivery of an adapted version of the Body Project is effective. More research is needed to establish the effectiveness of the Body Project for mixed-gender delivery.

Another variable to consider in the interpretation of the current results is that the LCPE student sample may have possessed higher baseline positive body image than the general population as exercise has been found to be negatively associated with body dissatisfaction (Gualdi-Russo et al., 2022). Indeed, the current outcomes lend support to Sundgot-Borgen et al.'s (2024) finding that the scope for cognitive dissonance induction is limited when participants have acceptable levels of positive body image at baseline.

It was intriguing to observe significant differences in appearance ideal internalisation and body appreciation between males in the intervention and control groups at baseline and post-test, but not between females. This was surprising given the two groups were age-matched and were recruited from similar sociodemographic backgrounds. A variable worth consideration is that the control group had received a talk titled 'Be Body Positive' from BodyWhys, the eating disorders association of Ireland earlier in the school year. The aim of the talk was to promote awareness of eating disorders, available supports and to promote

positive body image. It may be possible that this talk had increased male's levels of positive body image, but not females.

Active Experimentation

Having conducted this study, I now have greater confidence to engage in practice-based research. This is key to my professional development as I will be beginning a career as an Educational Psychologist in the National Educational Psychological Service upon qualification. Psychologists are reflective scientist-practitioners and I plan to continue to carry out research to inform best-practice. In particular, I intend to continue my research in the area of school-based positive body image programmes. I am seeking opportunities to disseminate my findings from this research to inform best practice in post-primary schools nationally.

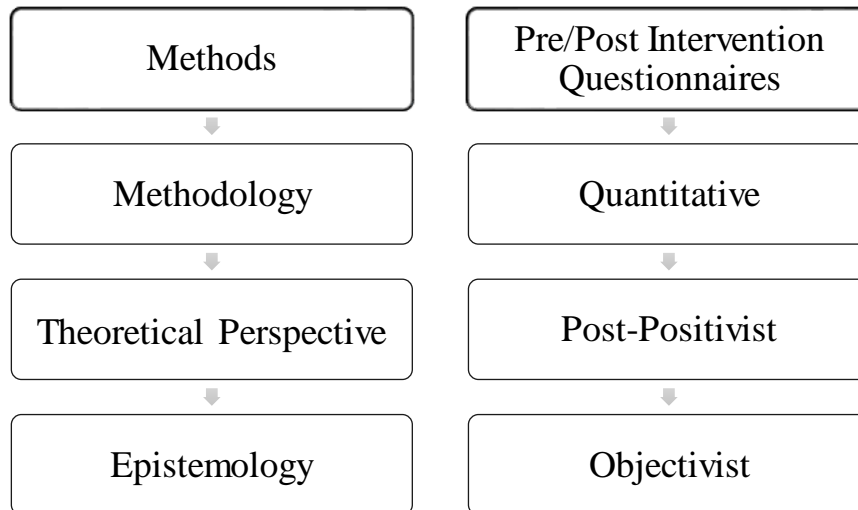
4.3 Epistemological Position

This research adopts a post-positivist research paradigm. Lincoln and Guba (1985) propose that a paradigm comprises four essential elements: ontology, epistemology, axiology and methodology. This section will discuss these four elements and how they align with the post-positivist paradigm adopted by this thesis.

Snape and Spencer (2003) define an ontological position as one's view about the world and what can be known about it. Crotty (1998, p.3) describes epistemology as "a way of understanding and explaining how I know what I know." Crotty's (1998) Methodological Framework is depicted in Figure 8.

Figure 8

Study Summary Using Crotty's Methodological Framework (1988)



Epistemology informs the theoretical perspective chosen to study the research questions, and the study methodology (Crotty, 1988). Conceptually, the post-positivist paradigm comprises an objectivist epistemology and critical realist ontology (Annells, 1997). In line with critical realism, post-positivist researchers accept that knowledge is fallible because it is shaped by contextual influences, but strongly value the contributions of objective investigation (McEvoy & Richards, 2003). The post-positivist paradigm allows exploration of causal phenomena by empirical study and strives to reduce bias and to ensure replicability and generalisability of findings (Philipps & Burbules, 2000). As such, the quantitative methodology employed by the current study aligned with the post-positivist paradigm.

4.4 Theoretical Framework

This study is theoretically underpinned by the Developmental Theory of Embodiment (DTE; Piran & Teall, 2012; Piran, 2017). The DTE offers a theoretical lens through which the promotion of positive body image can be examined. Previous studies attest that this framework is in line with protective factors for eating disorders (Webb et al., 2015; Tylka & Kroon Van Diest, 2015; Piran et al., 2023). The DTE is a social theory which outlines the development of embodiment. Embodiment has been explained as “the lived experience of engagement of the body with the world” (Piran & Teall, 2012, p.171). Body connection, agency and functionality, attuned self-care, and freedom from objectification are key to embodiment (Piran, 2015). The DTE proposes an integrated theoretical model of concurrent social forces that effect experiences of embodiment. It theorises that the social experiences which positively impact ones’ experience of embodiment and body image can be classified in three domains: the Physical Freedom domain, the Mental Freedom domain and the Social Power domain. The DTE presents broader contextual factors for contemplation in positive body image programmes which aim to prevent eating disorders (Piran et al., 2023). Research on the DTE has been predominately female-focused. However, embodiment has been shown to be a greater predictor of life satisfaction than self-esteem for both men and women (Holmqvist Gattario et al., 2020).

Piran (2015) suggests that the Body Project may be effective in boosting positive body image as the intervention components are consistent with protective factors in the DTE. She acknowledges that the Body Project intervention content fosters participants’ attunement with their bodies, their appreciation and connection to their bodies, and their sense of agency. Piran (2015) further proposes that the Body Project is consistent with protective factors in the Physical Freedom domain as it encourages participants to reflect on the ways in which the

pressures to conform to appearance ideals influence how they inhabit their bodies. Becoming aware of this can support positive embodiment. Piran (2015) argues that the Body Project is in line with the Mental Freedom domain as the programme urges participants to take a critical stance towards appearance ideals promoted by social structures such as the media, diet, and beauty industries. She further suggests that the Body Project aligns with the Social Freedom domain of the DTE as it persuades participants to engage in social activism to create societal change promote positive body image in their schools and wider communities. Therefore, the DTE was deemed to be the most suitable theoretical framework to underpin the current study exploring the effectiveness of the Body Project as a universal, whole-class positive body image intervention in co-educational post-primary schools.

4.5 Critical Appraisal

4.5.1 Overview of Critical Appraisal

In line with the systematic literature review in Chapter Two, Gough's Weight of Evidence (WoE; 2007) framework was used to critically appraise the current study. The WoE framework evaluates three components of research quality: WoE A, B and C. Each component receives a rating from high-low. The cumulative rating across the three components forms the overall weighting score: WoE D.

The WoE A assesses the methodological quality of the research. Gersten et al.'s (2005) coding protocol was used to measure the WoE A as the study has a quasi-experimental design. This coding protocol comprises two subsets of questions: Essential Quality Indicators, and Desirable Quality Indicators. The methodological quality of the study is rated High (3), Medium (2) or Low (1). The current study received a WoE A rating of 3 indicating it is of high methodological quality (See Table 18). The WoE Essential Quality

and Desirable Quality indicator checklists were used to identify the current study's profile of methodological strengths and limitations.

Table 18

WoE A Criteria and Rating

Criteria	Rating
Essential	9
Desirable	4
Total WoE A weighting	3 (High)

The WoE B judges the appropriateness of the methodology in relation to the review question. The WoE C evaluates the degree to which the study focus is applicable to the research question. Brannen's (2017) hierarchy of evidence was used to guide the WoE B (See Table 19) and WoE C (See Table 20) judgements.

Table 19*WoE B Criteria and Rating*

Rating	Criteria	Rationale
3 (High)	Systematic reviews. Meta-analyses. Randomised controlled trials. Controlled experimental designs.	Guided by Brannen (2017) Hierarchy of Evidence.
2 (Acceptable)	Uncontrolled experimental designs. Quasi-experimental designs. Cohort studies. Case-control studies.	
1 (Low)	Qualitative studies. Cross-sectional surveys. Case reports.	

Table 20*WoE C Criteria and Rating*

Criteria	Rating and Descriptor	Rationale
1 Programme Fidelity	<p>3 (High) Intervention delivered by trained facilitator in accordance with the script.</p> <p>2 (Medium) Intervention delivered by trained facilitator in accordance with the script with adaptations.</p> <p>1 (Low) Intervention not delivered by trained facilitator.</p>	<p>Given that this study was conducted with the aim of assessing the effectiveness of the Body Project programme it is necessary to ensure facilitators were trained to deliver the programme with fidelity.</p>
2 Target Population	<p>3 (High) All participants were aged over 14 years and attending co-educational post-primary schools in Ireland.</p> <p>1 (Low) Not all participants were aged over 14 years and attending co-educational post-primary schools in Ireland.</p>	<p>This study was evaluating the effectiveness of the Body Project as a positive body image intervention for students in co-educational Irish post-primary schools. Therefore, it is necessary to ensure the study sample consisted of the target sample.</p>
3 Measures	<p>3 (High) Intervention and control group were similar in size and completed the measures at a similar time.</p> <p>2 (Medium) Intervention and control group were either of similar size or completed measures at a similar time.</p> <p>1 (Low) Intervention and control group were different in size and did not complete measures at a similar time.</p>	<p>Demographic differences between intervention and control groups, and differences in group size could have confounding effects which may threaten internal validity (Elkins, 2015).</p>

Lastly, the WoE D, the overall weighting, is the cumulative score of the combined mean scores for WoE A, B and C (See Table 21). This indicates the extent to which a study can address the research question. The overall WoE D score was 2.3 (Medium). This critical appraisal tool has revealed the pattern of strengths and limitations in the current research. Future research should seek to address the current limitations.

Table 21

WoE D Rating

WoE A	WoE B	WoE C	WoE D
3	2	2	2.3 (Medium)

4.5.2 Participants

All participants in the study were Transition Year students. Therefore, all participants were aged between 15-17 years. This is consistent with the target population as the Body Project intervention is designed for participants aged 14-22 years (Stice et al., 2006). In addition, this age cohort is representative of adolescents at-risk of eating disorder onset nationally (Nolan et al., 2023).

In the current study, the intervention and control groups were demographically similar. Both groups were recruited from suburban, co-educational community post-primary schools with approximately 1000 students enrolled. Neither school met the criteria for DEIS (Delivering Equality of Opportunity in Schools) status, meaning that neither school was classified as disadvantaged. These demographic similarities support the internal validity of the current findings. Demographic differences between intervention and control groups could have confounding effects which may threaten internal validity, especially in a small sample (Elkins, 2015).

The rate of attrition in the current study was low. This suggests that attrition was likely random and thus supports the study's internal validity (McQuaid et al., 2003). Recent large-scale research investigating longitudinal school-based prevention programmes reflects high student attrition rates of between 27% -54% (Henneberger et al., 2023).

This study was sufficiently powered to detect a medium effect size of $d = .25$ with statistical power of .8 (Cohen, 1988). This reduced the possibility of a type II error of finding a false negative result (Columb et al., 2016). However, previous research suggests that universal intervention designs can contribute to smaller effect sizes (Kusina & Exline, 2019; Halliwell & Diedrichs, 2014). Therefore, future larger-scale research projects may investigate small effect sizes.

A possible confounding variable in this study was that all participants had chosen to study Physical Education as an elective subject for their Leaving Certificate examinations (LCPE). This subject curriculum has a practical component worth 50% of credits. One of the key aims of the subject is to increase students' "Appreciation of the benefits of physical activity for lifelong health and wellbeing" (NCCA, 2018, p.8). Research suggests that adolescents who regularly engage in physical activity have higher levels of positive body image than their less active counterparts. A recent systematic review of 28 studies investigating physical activity and body image perception in adolescents highlights that there is a negative relationship between physical activity and body image dissatisfaction (Gualdi-Russo et al., 2022). They report that as rates of physical activity increase, body dissatisfaction decreases. Similarly, Fernandez-Bustos et al. (2019) found that physical activity supports adolescents' positive self-concept and psychological wellbeing by improving physical perceptions and body satisfaction. Therefore, the sample in this study may have had higher rates of positive body image at baseline than the general population.

4.5.3 Intervention Fidelity

The researcher, who facilitated the intervention, had completed formal training to facilitate the Body Project programme. The intervention script was adapted by the researcher for universal, whole-class, mixed-methods delivery. The adaptations can be viewed in Table 10. Due to constraints on resources and time within the DECPsy programme, it was not possible to pilot the adapted Body Project intervention for universal delivery in mixed-gender, whole-class settings in the current study. The mixed-gender adaptations in the current study were informed by Kilpela et al. (2016), and single-facilitator, whole-class delivery adaptations were guided by the Universal Design for Learning principles (Hall et al., 2012). Previous research indicates that the Body Project is robust to adaptations for gender (Almeida et al., 2021; Jankowski et al., 2017; Brown et al., 2017; Brown & Keel, 2015).

The Evidence Readiness Level (ERL) model proposed by Ijzerman et al. (2020), presents a valuable framework for psychology to effectively address contemporary societal challenges and crises. Shaw and Pecsí (2021) introduced an adapted version of the ERL for school psychology, titled the Clinical Readiness Level (CRL). This offers a structured method to evaluate research suitability for clinical applications, particularly benefiting children and systems. As a universal, whole-class, mixed-gender intervention, the Body Project would need to reach the final CRL to be considered true evidence-based practice. To reach this level of the model, further research would need to implement and evaluate the Body Project as a universal, whole-class, mixed-gender positive body image intervention demonstrating its effectiveness and robustness across clinical and classroom settings.

The reported details of the adapted Body Project intervention in the current study are sufficient, which ensures the replicability of the study. This is pertinent considering the replicability crisis in the field of psychology research that has gained global attention in

recent years (Stevens, 2017). The importance of increasing replicability in research to strengthen psychological science has been stressed (Finkel et al., 2017).

4.5.4 Outcome Measures

The first research question posed by the current study was ‘Does the Body Project reduce appearance ideal internalisation when delivered as a universal, whole-class intervention in co-educational Irish post-primary schools?’ The Sociocultural Attitudes Towards Appearance Questionnaire 4 Revised (SATAQ-4R; Schaefer et al., 2017) was employed to measure the impact of the intervention on appearance ideal internalisation. The second research question posed was ‘Does the Body Project increase body appreciation when delivered as a universal, whole-class, intervention in co-educational Irish post-primary schools?’ The Body Appreciation Scale 2 (BAS-2; Tylka & Wood-Barcalow, 2015b) was employed to measure the impact of the intervention on positive body image. Therefore, the measures employed in the current study addressed the research questions posed.

Both measures employed (the Sociocultural Attitudes Towards Appearance Questionnaire Revised, Schaefer et al., 2017; The Body Appreciation Scale 2, Tylka & Wood-Barcalow, 2015b) have high internal consistency amongst males and females, and adolescent samples (α .96; α 0.75-0.96). In addition, both measures had high test-retest reliability (.90; .72 - .90). This increases the internal validity of the study. However, as these are self-report measures, it is important to be cautious of the risk of social desirability response bias (Edwards, 1953).

Finally, the measures were taken at the appropriate times. The measures were completed by participants before the intervention, and immediately upon intervention completion. Both the intervention and waitlist control group completed the measures within a

similar tight time frame (See Table 11), supporting the internal validity of the study findings (Mark & Reichardt, 2004).

In addition, the current study employed a Likert scale to measure participants' enjoyment of the intervention. Some research suggests that enjoyment can mediate the effectiveness of post-primary school-based interventions (Dishman et al., 2005). Indeed, behaviour change theorists have identified enjoyment as a key indicator of sustained engagement (Kwasnicka et al., 2016).

4.5.5 Study Design

The purpose of the current study was to evaluate the effectiveness of the Body Project (Stice et al., 2006) as a universal, whole-class, positive body-image intervention in co-educational Irish post-primary schools. The following overarching research question was posed: Is the Body Project intervention effective as a positive body image programme in co-educational Irish post-primary schools? The strengths and limitations of the current study can be viewed in Table 17.

Given the research questions posed, it was essential that the chosen study design facilitated causal inferences. A 2x2 quasi-experimental mixed design was utilised in the current study. This study design is appropriate to the research questions as it explores causality (Siedlecki et al., 2020). In addition, the current study was carried out in real world conditions, lending support to the ecological validity of the findings (Shamay-Tsoory & Mendelsohn, 2019). The control group added to the methodological relevance of the study as it provided a critical comparison, which controlled for confounding variables that may have impacted on participants' body image (Elkins, 2015). Thus, the control group increased the internal validity of the current study.

An explanatory sequential mixed-methods design was considered to gather qualitative follow-up data to explain the quantitative findings (Wisdom & Creswell, 2013). However, this fell beyond the scope of the current thesis research, which was a requirement for the DECPsy programme. It is believed that the current 2x2 quasi-experimental mixed study design makes a sufficient novel contribution to the literature in the field of positive body image and eating disorder prevention. A Likert scale measure of enjoyment was included to gather preliminary data to indicate participants' enjoyment of the intervention.

Randomised Controlled Trial (RCT) designs are the Gold Standard for effectiveness research as they minimize the risk of statistical bias (Hariton & Locascio, 2018; Flay et al., 2005). However, randomisation was not feasible in the current study, due to limited resources associated with the DECPsy programme. Therefore, class groups were allocated to the intervention group and control groups based on the schools' availability. More specifically, the availability of the schools to participate in the 4-week intervention programme. Active control groups are the most effective method of comparison (Karlsson & Bergmark, 2015). However, a waitlist control group design was adopted due to limited resources.

4.6 Ethical Considerations

4.6.1 Privacy and Confidentiality

Ethical approval was granted by the Mary Immaculate Research Ethics Committee (MIREC) in January 2023 (See Appendix G). Research procedures were guided by the Psychological Society of Ireland Code of Professional Ethics (2019).

The names of the schools, and the names of the participants were not recorded at any point throughout the intervention sessions or data collection process. Anonymous data has been stored on the researchers Office365 One Drive account. The data will be safely stored

for a period of 5 years after project completion in line with the Mary Immaculate College Records Retention Schedule.

4.6.2 Consent and Assent

Institutional permission to conduct the study was sought from the Principal of each school (See Appendix H). Written, informed consent was sought from all participants' parents/guardians (See Appendix I). All parent(s)/guardian(s) of potential participants received an information letter about the study. The researcher explained that participation in the study was optional and that there would be no repercussions should they choose not to give consent for their child to participate. They were asked to sign the consent form should they wish for their child to participate in the study. Informed written assent was sought from the participants (See Appendix J). The researcher visited the class to inform the potential participants about the study. Potential participants were provided with information sheets, which were also read aloud by the researcher. The researcher offered potential participants the opportunity to ask questions. Participants were clearly informed that there would be no repercussions should they choose not to take part. Participants gave their written, informed assent.

4.6.3 Considerations for a Universal Approach

The key ethical priority of this study was to do no harm to the participants. Therefore, prior to conducting the study, it was essential for the researcher to consider all possible adverse effects of the intervention. A study conducted in 2002 (O'Dea et al.) found that a poster-based body image education programme had potentially negative effects on adolescent girls. However, there is a wealth of research that attests to the safety of eating disorder prevention programmes for adolescents (Fingeret., 2006; Berger et al., 2014; Dunstan et al., 2017). To protect participants from potential risk of harm, the researcher ensured not to

mention weight control methods or details regarding eating disorders at any point throughout the data collection process.

As such, the researcher designed the study using a positive body image approach rather than a negative body image approach. This involved focusing on protective factors rather than risk factors. This was pertinent when delivering the Body Project as a universal intervention as not all adolescents have elevated risk factors that need reduction, but all can benefit from boosting protective factors (Smolak & Levine, 2015).

Another ethical consideration when delivering the Body Project as a universal intervention was the potential risk to participants of losing curriculum-based educational learning time. However, with support from the Transition Year Co-Ordinators in the participating schools, the researcher became aware that the Body Project could be incorporated into the LCPE curriculum as part of the Gender and Physical Activity topic, which focuses on learning about the impact of the media and wider society on body image and women's participation in sport. The intervention was delivered during LCPE class time; therefore, participants did not miss out on educational opportunities by attending the intervention sessions.

It was ethically responsible to include males in the current study given the prevalence of eating disorders amongst males and the fact that they have been largely excluded in the field of eating disorder prevention research (Gordon et al., Murray et al., 2018; Murray et al., 2017). It was also ethically important to include sexual and gender minority (SGM) individuals as they experience a higher risk of disordered eating than the general population (Simone, 2022).

4.6.4 Support Pathway

The researcher identified a clear support pathway for participants should they identify body image concerns at any time throughout the study. An information leaflet was compiled signposting relevant, accessible supports and services, how they can be of help, and their contact details. This leaflet was sent to parents/guardians of participants and given to participants during the initial information session. The researcher verbally read the leaflet to the class and provided space for participants to ask questions about the signposted supports and services. Class Teachers were also made aware of the identified support pathway and provided with copies of the information leaflet. The researcher remained onsite for one hour following the final intervention session to allow for any questions that students may wish to ask.

4.6.5 Safeguarding

Prior to facilitating the programme, a number of safeguarding measures were put in place. Firstly, the researcher underwent Garda Vetting. The National Vetting Bureau Children and Vulnerable Persons Act 2012 provides a statutory basis for the vetting of people who work with children and vulnerable people. In addition, the researcher completed an Introduction to Children First Training. This training is in line with the Children First: National Guidance for the Protection and Welfare of Children 2017 and the Children First Act 2015. It outlines how to recognise, and report concerns about a child's welfare.

In addition, the Class Teacher always remained present in the room throughout the data collection process. This was important as teachers are classified as mandated persons under the Children's First Act 2015. It was also useful for the teacher to be present in the room to assist students with special educational needs in understanding the study information form and thus ensuring that they were giving voluntary informed assent to participate in the study.

4.7 Implications

The aim of this research study was to evaluate the effectiveness of the Body Project (Stice et al., 2006) as a universal, whole-class positive body image intervention in co-educational Irish post-primary schools. The findings contribute to the literature in the field of positive body image and eating disorder prevention. Tentative implications and directions for future research are discussed below in relation to research, policy and practice.

4.7.1 *Implications for Psychological Research*

There is a robust evidence base for the effectiveness of the Body Project as a small group, selective intervention for females aged 14-22 years (Amaral et al., 2019; Ghaderi et al., 2020; Hudson et al. 2021; Resende et al., 2022; Stice et al., 2023; Stice et al., 2013b; Stice et al., 2009; 2011; Stice et al., 2017; 2020), and some research attesting to its efficacy for males (Almeida et al., 2021; Jankowski et al., 2017; Brown et al., 2017; Brown & Keel, 2015). However, there is a lack of research evaluating the effectiveness of the Body Project for mixed-gender delivery. The present study addresses this gap in the research. Current findings lend support to Kilpela et al.'s (2016) pilot study, which did not find the Body Project to be effective in reducing appearance ideal internalisation when delivered in mixed-group settings. However, this conflicts with the results of Ciao et al. (2021) who found the mixed-gender delivery of an adapted version of the Body Project to be effective in reducing appearance ideal internalisation. Further research is needed to confirm the effectiveness of the Body Project for mixed-gender cohorts.

The current thesis also adds to the literature exploring the effectiveness of the Body Project as a universal, post-primary school-based programme. To date, only one study has evaluated the Body Project as a universal post-primary school-based intervention. Halliwell & Diederichs (2014) found the Body Project effectively reduced appearance ideal

internalisation when delivered as a small-group, universal intervention in a single-sex girls' post-primary school. Thus, the current study made a novel contribution to the literature by evaluating the Body Project as a universal intervention in a co-educational post-primary school.

This research makes an original contribution as it is the first study to evaluate the Body Project as a whole-class intervention. It adds to the literature exploring the effectiveness of dissonance-based, universal, whole-class, mixed-gender positive body image interventions. The current findings are in line with previous literature that has found dissonance-based, universal, whole-class, mixed-gender positive body image interventions do not effectively reduce appearance ideal internalisation (Diedrichs et al., 2015; Diedrichs et al., 2021; Stewart et al., 2022). Additionally, the current findings are in line with Regehr et al. (2020) who found that universal, whole-class, mixed-gender dissonance-based interventions do not increase body appreciation.

As the intervention in the current study was delivered to LCPE students, it also builds on the previous research exploring the effectiveness of the Body Project for athletic adolescents. The present study outcomes align with Sundgot-Borgen et al. (2024) findings that participants had acceptable levels of body appreciation at baseline, which did not increase as a result of the sport-specific Young Athlete Body Project intervention. These findings imply that there may be limited scope for cognitive dissonance induction when participants have acceptable levels of positive body image at baseline. This is an important consideration for future research evaluating physical education-based body image programmes underpinned by cognitive dissonance theory.

Another key contribution of the current study is that it is an independent evaluation of the effectiveness of the Body Project Programme. The programme creator is an author of

many of the high-quality effectiveness trials (Amaral et al., 2019; Ghaderi et al., 2020; Hudson et al., 2021; Stice et al., 2023; Stice et al., 2013b; Stice et al., 2009; 2011; Stice et al., 2017; 2020). Scientists are susceptible to confirmation bias (Lilienfeld et al., 2012). Research conducted by Ahn et al., (2017) found that financial ties of principal investigators are independently correlated with positive randomised controlled trial outcomes. Indeed, Ioannidis (2012) argues that replication of studies by the same team of researchers poses a higher risk of confirmation bias, thus independent research is required to establish true replicability.

An important finding of the current preliminary study was that Irish adolescents mostly enjoyed the intervention programme. The Mean enjoyment rating was 4 (enjoyed it). Participants' level of enjoyment of the Body Project programme may suggest that the programme could be acceptable in post-primary school settings. Indeed, this would align with UK research (Jarman et al., 2021). Future research could build on this preliminary finding by qualitatively exploring the Body Project intervention in Irish post-primary schools to explore participants' experiences of dissonance and thus inform intervention adaptations for the post-primary setting with the aim of increasing intervention effectiveness.

4.7.2 Implications for Policy

The Continuum of Support Post-Primary Framework (NEPS, 2010) was set out to support schools to identify and respond to students' needs (See Figure 1). It recognises that students require varying levels of support based on their unique needs. This framework suggests that schools should offer universal prevention programmes at the Support for All level to foster students' social, emotional, and behavioural wellbeing as well as their learning. In the current study, the Body Project was not found to be effective as a universal, whole-class positive body image intervention in co-educational post-primary school. Therefore, if future research establishes an evidence-base for the Body Project to be delivered in the

original small-group, selective intervention format in Irish post-primary schools, it may be better suited to students at the Support for Some level of the Continuum.

This study indicates that universal positive body image interventions align with current SPHE and LCPE curriculum frameworks at senior cycle post-primary level (NCCA 2011; 2018). The present study suggests that positive body image programmes can be incorporated into the LCPE curriculum. This was identified by post-primary school teachers during the study recruitment phase. Body image interventions can be incorporated in the topic of Gender and Physical Activity, which is part of the Contemporary Issues in Physical Activity strand of the LCPE curriculum. This topic focuses on learning about the impact of the media and wider society on body image and women's participation in sport. Additionally, the current study suggests that positive body image programmes can be incorporated into the Transition Year programme, a distinct, one-year programme "...that promotes the personal, social, vocational and educational development of students and prepares them for their role as autonomous, participative and responsible members of society" (Department of Education, 1994, p.2). This finding is in line with previous literature, which emphasises that body image interventions can be incorporated into school curricula (Kusina & Exline, 2019). More research is needed to identify evidence-based positive body image programmes that are effective in whole-class settings.

The findings of the present study reinforce the importance of ensuring that evidence-based interventions are implemented with high levels of fidelity in school settings.

Policymakers should monitor the fidelity of evidence-based school-based intervention programmes. Future research, focused on implementation science, could support our understanding of how positive body image interventions could be effectively implemented and sustained in Irish post-primary schools (Hagermoser Sanetti & Collier-Meek, 2019). Implementation science has been described as "the methods to promote the systematic uptake

of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of ... services” (Eccles & Mittman, 2006, p. 1). In this regard, future research could draw on the Clinical Readiness Level, a structured method to evaluate research suitability for clinical applications in school psychology (Shaw and Pecs, 2021).

4.7.3 Implications for Educational and Child Psychology Practice

A novel contribution of this study is that it explores the Body Project as a universal, whole-class, mixed-gender intervention. In the current study, the Body Project was not found to be effective in increasing positive body image when delivered in this format. This may be understood as the Body Project is rooted in cognitive dissonance theory. Butryn et al. (2014) explain the benefit of small group sizes in cognitive-dissonance interventions. They argue that small group sizes allow each participant opportunities for active participation which is key to cognitive dissonance induction. Therefore, it is possible that participants level of individual participation, and thus the level of dissonance induced, was reduced in the large group, whole-class setting. This finding indicates that cognitive dissonance-based interventions may be best delivered in small group settings.

In addition, this study supports Stice et al.’s (2019) finding that employing a minimum of two facilitators is advantageous when delivering dissonance-based interventions in order to manage intervention activities and participants’ engagement levels.

Although the present study suggests that the Body Project programme was not effective as a universal, whole-class, mixed-gender positive body image intervention, it is plausible that it may still have offered some benefits to the schools that participated. The programme may have raised participant’s awareness of the importance of positive body image, and the potential harmful effects of pursuing unrealistic appearance ideals. The support pathway identified by the researcher, may have increased participants’ awareness of

the body image support services accessible to them. In addition, by facilitating peer discussion about body image and offering positive role-modelling, it is possible that the intervention may have supported a reduction in weight-related stigma. Although not measured in the current study, this is an important consideration given the findings of the STEDI (Stigma and Treatment of Eating Disorders in Ireland; O'Connor et al., 2016) study, which emphasises the increased stigma around eating disorders compared to other mental health difficulties amongst adolescent populations in Ireland, and Campbell et al.'s (2022) call for mental health practitioners to address prevalent fatphobic attitudes in schools.

The current research indicates that Irish post-primary students enjoyed receiving the Body Project intervention. This preliminary finding lends support to the notion that post-primary schools may be an appropriate setting for effective evidence-based positive-body image interventions (Kurz et al, 2022; Kusina & Exline, 2019).

A significant implication of the current study is that participants' positive body image ratings were maintained. Early eating disorder prevention programmes raised concerns about unintentional harmful side effects (O'Dea, 2000). This finding is in line with a previous meta-analysis investigating potential harmful effects of eating disorder prevention programmes (Fingeret, 2006) and classroom based positive body image interventions which investigated unintended harmful side effects (Berger et al., 2014; Dunstan et al., 2017). This finding is important as it demonstrates that universal positive body-image interventions with adolescents can be ethical and safe.

5 Impact Statement

The number of young people aged under 18 years receiving inpatient eating disorder treatment has more than doubled from 2018 to 2022 (Health Research Board, 2023). The Body Project (Stice et al., 2006) is a cognitive dissonance-based eating disorder prevention programme. Stice et al.(2013a) have suggested that researchers should evaluate the effectiveness of classroom-based, universal, dissonance-based eating disorder prevention programmes. Levine & Smolak (2016) highlight the importance of prevention programmes in fostering protective factors to reduce the risk of eating disorder development. The primary objective of the current study was to evaluate the effectiveness of an adapted version of the Body Project as a universal, whole-class, positive body image intervention in co-educational Irish post-primary schools. Findings indicate that the intervention did not significantly reduce appearance ideal internalisation nor increase body appreciation. Participants mostly enjoyed the intervention. This research makes an original contribution to the field of positive body image and eating disorder prevention as it is the first to explore the effectiveness of the Body Project as a universal, whole-class, mixed-gender intervention, and the first to evaluate the Body Project in the Irish cultural context. To disseminate these novel findings, I will submit my study to suitable peer-reviewed academic journals for publication.

This research contributes to the literature evaluating the Body Project by providing independent research. The need for independent research to establish true replicability has been highlighted (Ioannidis, 2012). Strengthening psychological science through replicability in research is especially pertinent considering the replicability crisis in psychology (Finkel et al., 2017; Anderson et al., 2016).

The findings of the present study reinforce the importance of ensuring that evidence-based interventions are implemented with high levels of fidelity in school settings (Shaw and

Pecsi, 2021; Sanetti & Collier-Meek, 2019). Importantly, the current findings indicate that universal body-image interventions can be ethically delivered in school-settings. As it is crucial that the relevant stakeholders have access to this research to inform practice in schools, I will submit research articles to the Irish National Teacher's Organisation journal and union magazine, and the Association of Secondary Teachers Ireland magazine. I will also submit a research article to the official magazine of the Psychology Society of Ireland. Accordingly, I will publish my research on open access websites and share my research on the Mary Immaculate Research Repository. Open science allows wider populations to access research, supporting its translation into practice (van der Zee & Riech, 2018).

As this study was the first evaluation of the Body Project in the Irish cultural context, it is important that I continue to share the findings at a national level through conference presentations. This research plan has been presented orally at Psychological Counsellors in Higher Education Ireland Training Conference, Dublin in September 2022 and findings have been shared with Trainee Post-Primary teachers pursuing the Postgraduate Master of Education programme in the University of Maynooth in December 2023. I plan to present my research at the upcoming Psychology Society of Ireland Annual Conference and the 2024 National Educational Psychological Service Annual Business Conference.

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Appendix A

Studies Excluded at Full Text

Reference	Exclusion Criteria Code
1. Almeida, M., Brown, T. A., Campos, P. F., Amaral, A. C. S., & Carvalho, P. H. B. (2021). Dissonance-based eating disorder prevention delivered in-person after an online training: A randomized controlled trial for Brazilian men with body dissatisfaction. <i>International Journal of Eating Disorders</i> , 54(3), 293-304. https://doi.org/10.1002/eat.23423	5
2. AlShebali, M., Becker, C., Kellett, S., AlHadi, A., & Waller, G. (2022). Adapting the body project to a non-western culture: A dissonance-based eating disorders prevention program for Saudi women. <i>Eating and Weight Disorders</i> , 26(8), 2503-2512. https://doi.org/10.1007/s40519-021-01104-9	4a
3. Becker, C. B., Perez, M., Kilpela, L. S., Diedrichs, P. C., Trujillo, E., & Stice, E. (2017). Engaging stakeholder communities as body image intervention partners: The Body Project as a case example. <i>Eating Behaviors</i> , 25, 62-67. https://doi.org/10.1016/j.eatbeh.2016.03.015	4b
4. Becker, C. B., & Stice, E. (2017). From efficacy to effectiveness to broad implementation: Evolution of the Body Project. <i>Journal of Consulting and Clinical Psychology</i> , 85(8), 767-782. https://doi.org/10.1037/ccp0000204	4b
5. Brown, T. A., Forney, K. J., Pinner, D., & Keel, P. K. (2017). A randomized controlled trial of The Body Project: More Than Muscles for men with body dissatisfaction [Article]. <i>International Journal of Eating Disorders</i> , 50(8), 873-883. https://doi.org/10.1002/eat.22724	5
6. Brown, T. A., & Keel, P. K. (2015). A randomized controlled trial of a peer co-led dissonance-based eating disorder prevention program for gay men. <i>Behaviour Research and Therapy</i> , 74, 1-10. https://doi.org/10.1016/j.brat.2015.08.008	5
7. Butryn, M. L., Rohde, P., Marti, C. N., & Stice, E. (2014). Do participant, facilitator, or group factors moderate effectiveness of the Body Project? Implications for dissemination. <i>Behaviour Research and Therapy</i> , 61, 142-149. https://doi.org/10.1016/j.brat.2014.08.004	4b
8. Casasnovas, A. F., Huryk, K. M., Levinson, D., Markowitz, S., Friedman, S., Stice, E., & Loeb, K. L. (2021). Cognitive dissonance-based eating disorder prevention: pilot study of a cultural adaptation for the Orthodox Jewish community. <i>Eating disorders</i> , 29(2), 192-204. https://doi.org/10.1080/10640266.2019.1644797	4a
9. D'Adamo, L., Ghaderi, A., Rohde, P., Gau, J. M., Shaw, H., & Stice, E. (2023). Evaluating whether a peer-led dissonance-based eating disorder prevention program prevents onset of each eating	6

- disorder type. *Psychological Medicine*.
<https://doi.org/10.1017/S0033291723000739>
10. Green, M. A., Willis, M., Fernandez-Kong, K., Reyes, S., Linkhart, R., Johnson, M., Thorne, T., Lindberg, J., Kroska, E., & Woodward, H. (2017). A Controlled Randomized Preliminary Trial of a Modified Dissonance-Based Eating Disorder Intervention Program. *Journal of clinical psychology*, 73(12), 1612-1628. <https://doi.org/10.1002/jclp.22468> 4a
 11. Hirsch, K. E., Muir, I. L., Munroe-Chandler, K. J., & Loughhead, T. M. (2021). An Examination of a Dissonance-Based Body Image Promotion Intervention: A Case Study of Youth Female Soccer Players. *Case Studies in Sport & Exercise Psychology*, 6(1), 1-11. <https://doi.org/10.1123/cssep.2021-0032> 5
 12. Perelman, H., Schwartz, N., Yeoward-Dodson, J., Quiñones, I. C., Murray, M. F., Dougherty, E. N., Townsel, R., Arthur-Cameselle, J., & Haedt-Matt, A. A. (2022). Reducing eating disorder risk among male athletes: A randomized controlled trial investigating the male athlete body project. *International Journal of Eating Disorders*, 55(2), 193-206. <https://doi.org/10.1002/eat.23665> 5
 13. Shaw, H., Rohde, P., Desjardins, C. D., & Stice, E. (2020). Sexual orientation correlates with baseline characteristics but shows no moderating effects of dissonance-based eating disorder prevention programs for women. *Body Image*, 32, 94-102. <https://doi.org/10.1016/j.bodyim.2019.11.006> 4b
 14. Stice, E., Marti, C. N., & Cheng, Z. H. (2014). Effectiveness of a dissonance-based eating disorder prevention program for ethnic groups in two randomized controlled trials. *Behaviour Research and Therapy*, 55, 54-64. <https://doi.org/10.1016/j.brat.2014.02.002> 4b
 15. Stice, E., Onipede, Z. A., Shaw, H., Rohde, P., & Gau, J. M. (2021). Effectiveness of the Body Project eating disorder prevention program for different racial and ethnic groups and an evaluation of the potential benefits of ethnic matching. *Journal of Consulting and Clinical Psychology*, 89(12), 1007. <https://doi.org/10.1037/ccp0000697> 4b
 16. Stice, E., Yokum, S., Rohde, P., Gau, J., & Shaw, H. (2021). Evidence that a novel transdiagnostic eating disorder treatment reduces reward region response to the thin beauty ideal and high-calorie binge foods. *Psychological Medicine*. <https://doi.org/10.1017/S0033291721004049> 5
 17. Stice, E., Yokum, S., Rohde, P., Shaw, H., Gau, J. M., Johnson, S., & Johns, A. (2019). Randomized trial of a dissonance-based transdiagnostic group treatment for eating disorders: An evaluation of target engagement. *Journal of Consulting and Clinical Psychology*, 87(9), 772-786. <https://doi.org/10.1037/ccp0000430> 5
 18. Stice, E., Yokum, S., & Waters, A. (2015). Dissonance-based eating disorder prevention program reduces reward region response to thin models; how actions shape valuation. *PLoS ONE*, 10(12). <https://doi.org/10.1371/journal.pone.0144530> 6

19. Unikel-Santoncini, C., de León-Vázquez, C. D., Rivera-Márquez, J. A., Bojorquez-Chapela, I., & Méndez-Ríos, E. (2019). Dissonance-based program for eating disorders prevention in Mexican university students. *Psychosocial Intervention*, 28(1), 29-35. <https://doi.org/10.5093/pi2018a17> 6
20. Vanderkruik, R., Gist, D., & Dimidjian, S. (2020). Preventing eating disorders in young women: An RCT and mixed-methods evaluation of the peer-delivered Body Project. *Journal of Consulting and Clinical Psychology*, 88(12), 1105-1118. <https://doi.org/10.1037/ccp0000609>. 4a
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Appendix B

Updated Search: Studies Excluded at Full Text

Reference	Exclusion Criteria Code
<p>1. Carrard, I., Cekic, S., & Bucher Della Torre, S. (2023). A randomized controlled trial to evaluate the acceptability and effectiveness of two eating disorders prevention interventions: the HEIDI BP-HW project. <i>BMC Women's Health</i>, 23(1), 1-13. https://doi.org/10.1186/s12905-023-02607-6</p>	4a
<p>2. Olson, K. L., Thaxton, T. T., Landers, J. D., & Emery, C. F. (2024). Evaluating the effect of targeting body shape concerns on long-term weight change. <i>International Journal of Eating Disorders</i>, 57(1), 201-205. https://doi.org/10.1002/eat.24096</p>	4a

Appendix C

Mapping the Field

No.	Authors	Sample	Design	BP Intervention	Outcome Measures	Main Findings	Conflicts of Interest
1	Amaral, A. C. S., Stice, E., Ferreira, M. E. C. (2019)	<i>N</i> =141 adolescent females (<i>Mean</i> 16.25) With self- reported body image concerns, without history of ED.	Randomised Control Trial.	Four one-hour weekly groups, five to eight per groups using Portuguese manual delivered by trained researcher facilitators.	BAS; Avalos et al., 2005) and The SATAQ-3 (Thompson et al., 2004).	Reductions in appearance ideal internalisation, and increase in body appreciation at post- test.	The founder of the Body Project, Dr Eric Stice is co- author. Authors declare that they do not have any competing interests.
2	Ghaderi, A., Stice, E., Andersson, G., Enö Persson, J., Allzén, E. (2020)	<i>N</i> =297 females aged 15-20 years old (<i>Mean</i> 17.3) with self-reported body image concerns. Without DSM V eating disorder or serious mental health difficulties.	Randomised Control Trial.	Four one-hour weekly virtual sessions in groups of five to six participants delivered by trained peer educators.	IBSS-R (Stice et al., 1996).	Reduction in appearance ideal internalisation at postintervention, and 6-, 12-, 18-, or 24- months follow-up.	The founder of the Body Project, Dr Eric Stice is co- author. Eric Stice is also an Associate Editor of the journal.

3	Hudson, T., Aparecida A., Soares, A. C., Stice, E., Gau, J., Ferreira, M. E. C. (2021)	<i>N</i> =141 female university students (18-30 years; <i> Mage</i> 20.77) with self-reported body image concerns but no previous or current eating disorder diagnosis.	Randomised Control Trial.	Four one-hour weekly sessions with five to eight participants delivered by trained facilitators.	SATAQ-3 (Thompson et al., 2004) and BAS (Avalos et al., 2005) .	Reduction in appearance ideal internalisation and increase in body appreciation at post-test and 6-months follow up.	The founder of the Body Project, Dr Eric Stice is co-author. Authors declare no competing interests.
4	Resende, T. R, Almeida, M., Dos Santos A., Brown, M., de Carvalho, T. A., Berbert, P. H. (2022)	<i>N</i> =72 Female university students (<i> Mage</i> 20.5) with self-reported body-image concerns but had no diagnosis of any psychiatric disorder including eating disorders.	Randomised Control Trial	Four one-hour weekly sessions for groups of five to eight participants delivered by trained facilitators guided by Portuguese manual.	SATAQ-4R (Schaefer et al., 2017) and BAS-2 (Tylka & Wood-Barcalow, 2015a).	Reduction in appearance ideal internalisation and increase in body appreciation at post-test and 24- week follow up.	Authors declare no conflicts of interest.
5	Stice, E., Bohon,C, Shaw, H. and	<i>N</i> =75 females (16-27 years; <i> Mage</i> 21.2)	Randomised Control Trial	Four weekly one-hr group sessions with five to nine	TIIS (Stice, Rohde, et al., 2017)	Reductions in thin-ideal internalisation at post-test.	The founder of the Body Project, Dr

	Desjardins, C. D. (2023)	with body image concerns, who did not meet DSM V criteria for Anorexia Nervosa, Bulimia or Binge Eating Disorder.		participants delivered by peer educators using a scripted intervention manual.			Eric Stice is the lead author.
6 & 7	Stice, E., Rohde, P., Shaw, H., Gau, J. (2009;2011)	<i>N</i> =306 girls aged 14-19 years (<i> Mage</i> 15.7 years) with self-reported body image concerns, who did not meet DSM-IV criteria for anorexia nervosa, bulimia nervosa, or binge eating disorder.	Randomised Control Trial	Four one-hour weekly sessions with six to 10 participants delivered by trained school nurses and counsellors.	IBSS-R (Stice et al., 1996).	Thin ideal internalisation was reduced significantly at post-test, but these effects did not persist at 6-month, 1 year, 2 year or 3-year follow up.	The founder of the Body Project, Dr Eric Stice is the lead author.
8	Stice, E., Butryn, M. L., Rohde, P., Shaw, H.,	<i>N</i> =421 undergraduate female	Randomised Control Trial.	Four one-hour weekly sessions with five to nine participants per group. Facilitators	IBSS-R (Stice et al., 1996).	Reduced appearance ideal internalisation at post-test and at 1-year follow-up.	The founder of the Body Project, Dr Eric Stice is the lead author.

	Marti, C. N. (2013)	students (<i>Mage</i> 21.6)		were trained psychology students/professional			
9	Stice, E., & Shaw, H.	<i>N</i> =680 female university	Randomised Control	three intervention groups completed four weekly one-hour sessions in groups of five to nine participants. One delivered virtually by trained facilitators, one by trained peers, and one by trained clinicians.	TIIS (Stice et al., 2017).	Reductions in appearance ideal internalisation at post- test and at 1- and 2- year follow-up, persisting through 3- and 4-year follow-ups.	The founder of the Body Project, Dr Eric is the lead author.
10	Rohde, P., Gau, J. M. (2017; 2020)	students (<i>Mage</i> 22.2)					

Appendix D

WoE A Coding Protocol (Gersten et al., 2005)

Essential Quality Indicators

Quality Indicators for Describing Participants

1. Was sufficient information provided to determine/confirm whether the participants demonstrated the disability(ies) or difficulties presented?
2. Were appropriate procedures used to increase the likelihood that relevant characteristics of participants in the sample were comparable across conditions?
3. Was sufficient information given characterizing the interventionists or teachers provided? Did it indicate whether they were comparable across conditions?

Quality Indicators for Implementation of the Intervention and Description of Comparison Conditions

1. Was the intervention clearly described and specified?
2. Was the fidelity of implementation described and assessed?
3. Was the nature of services provided in comparison conditions described?

Quality Indicators for Outcome Measures

1. Were multiple measures used to provide an appropriate balance between measures closely aligned with the intervention and measures of generalized performance?
2. Were outcomes for capturing the interventions effect measured at the appropriate times?

Quality Indicators for Data Analysis

1. Were the data analysis techniques appropriately linked to key research questions and hypotheses? Were they appropriately linked to the limit of analysis in the study?
2. Did the research report include not only inferential statistics but also effect size calculations?

Desirable Quality Indicators

1. Was data available on attrition rates among intervention samples? Was severe overall attrition documented? If so, is attrition comparable across samples? Is overall attrition less than 30%?
2. Did the study provide not only internal consistency reliability but also test-retest reliability and interrater reliability (when appropriate) for outcome measures? Were data collectors and/or scorers blind to study conditions and equally (un)familiar to examinees across study conditions?

3. Were outcomes for capturing the intervention's effect measured beyond an immediate post-test?
 4. Was evidence of the criterion-related validity and construct validity of the measures provided? Y
 5. Did the research team assess not only surface features of fidelity implementation (e.g., number of minutes allocated to the intervention or teacher/interventionist following procedures specified), but also examine quality of implementation?
 6. Was any documentation of the nature of instruction or series provided in comparison conditions?
 7. Did the research report include actual audio or videotape excerpts that capture the nature of the intervention?
 8. Were results presented in a clear, coherent fashion?
-

Appendix E

Criteria and Rationale for WoE B Ratings

Rating	Criteria	Rationale
3 (High)	<p>Met ≥ 2 of the following:</p> <ul style="list-style-type: none"> There is an active control group. Participants are randomly assigned to the treatment or control group. Longitudinal design. 	<p>Guided by Petticrew and Roberts (2003) Typology of Evidence.</p>
2 (Medium)	<p>Met ≥ 2 of the following:</p> <ul style="list-style-type: none"> There is an active control group. Participants are randomly assigned to treatment or control group. Pre and Post design. 	
1 (Low)	<p>Met ≥ 2 of the following:</p> <ul style="list-style-type: none"> There is an inactive control group. Participants are not randomly assigned to the control group. Pre and Post measures. 	

Appendix F

Criteria and Rationale for WoE C Ratings

Criteria	Rating and Descriptor	Rationale
1 Intervention delivered by trained facilitator in accordance with facilitation script.	<p>3 (High) Facilitator trained to deliver BP intervention and follow the script.</p> <p>2 (Medium) Intervention delivered either by trained facilitator OR in accordance with the script.</p> <p>1 (Low) Intervention not delivered by trained facilitator nor delivered in accordance with the facilitator script.</p>	<p>Given that this review was conducted with the aim of assessing the effectiveness of the BP programme it is necessary to ensure facilitators were trained to deliver the programme with fidelity.</p>
2 Participants screened to assess eating disorder symptomology prior to taking part in the study.	<p>3 (High) Participants screened prior to study commencement.</p> <p>1 (Low) Participants not screened for eating disorder symptoms prior to study commencement.</p>	<p>The BP is an eating disorder prevention programme; therefore, it is necessary to ensure the studies were measuring eating disorder prevention, rather than eating disorder treatment.</p>
3 Culturally Diverse Sample.	<p>3 (High) Culturally diverse sample.</p> <p>1 (Low) Low level of cultural diversity across sample OR diversity of sample not reported.</p>	<p>Culture has been shown to influence body image (Swami et al., 2010). Studies with greater diversity amongst the samples increased</p>

confidence that findings
would be applicable to
the Irish context as
Ireland is one of the
most culturally diverse
countries in Europe
(ESRI, 2018)

Appendix G

MIREC Approval Form

MIREC-5, Created November 2021



MIREC-5

Research Ethics Committee

MIREC Final Decision Form

APPLICATION NUMBER:

A22-060

1. PROJECT TITLE

Evaluating the effectiveness of the Body Project as a classroom-based positive body-image intervention in Irish post-primary schools

2. APPLICANT

Name:	Mathilde McCarthy
Department / Centre / Other:	EPISE
Position:	Postgraduate Researcher (DECPsy)

3. DECISION OF MIREC CHAIR (✓)

<input type="checkbox"/>	Ethical clearance through MIREC is not required and therefore the applicant need take no further action in this regard.
<input checked="" type="checkbox"/>	Ethical clearance is required and is hereby granted by the Chair without need for referral to the MIREC committee.
<input type="checkbox"/>	Ethical clearance for a funding application or a similar purpose is granted by the Chair <i>pro tem</i> without need for referral to the MIREC committee. However, the applicant must subsequently seek ethical clearance from MIREC prior to embarking on any related project work involving human participants or their data.
<input type="checkbox"/>	Ethical clearance is granted following review of the application by the MIREC committee.
<input type="checkbox"/>	Ethical clearance is not granted following review of the application by the MIREC committee.


4. REASON(S) FOR DECISION

I have reviewed this application and I am satisfied it meets MIREC requirements.

Safeguarding statement and risk assessment are fit for purpose.

The application is, therefore, approved.

5. SIGNATURE OF MIREC CHAIR

Name (Print):	Dr Marie Griffin
Signature:	
Date:	12 th January 2023

Appendix H

Institutional Permission Request

Institutional Permission Request to Conduct Research

Dear Principal,

I am writing to request your institutional permission to conduct research with Transition Year students in your school. The title of the proposed research study is *Evaluating the Effectiveness of the Body Project as a classroom-based positive-body image intervention*. Thank you for your consideration.

Who is the researcher?

Mathilde McCarthy is a Trainee Educational and Child Psychologist from Cork completing the Professional Doctorate in Educational and Child Psychology programme in Mary Immaculate College, Limerick. Mathilde is Garda-vetted and has experience working with children and young people in schools. Mathilde is passionate about supporting youth wellbeing and is exploring the effectiveness of the Body Project in Irish post-primary schools for her Doctoral Thesis.

What is the Body Project?

The Body Project was developed by Dr Eric Stice and colleagues in 2006 in Stanford University in the USA. It is a group intervention for young people aged 14-22 years. The Body-Project is a body-acceptance programme designed to help young people to challenge cultural pressures to conform to appearance ideal standards of beauty and reduce their pursuit of unrealistic bodies. The programme encourages young people to think critically about how the media portrays the ideal body.

The programme has been delivered to over 3 million participants in more than 125 countries and it is effective in improving positive body-image and reducing belief in appearance ideal standards (Becker & Stice, 2017). Some research carried out in the UK shows that the Body Project may be suitable for use as a positive body-image intervention in school classrooms (Halliwell & Diedrichs, 2014).

Why is positive body-image important for young people?

Positive body-image is a protective factor against the development of eating disorders. In Ireland, there has been a three-fold increase in children and adolescents being admitted to psychiatric care for eating disorder treatment since 2018 (Health Research Board, 2021).

What is the purpose of this study?

The purpose of this study is to find out if the Body Project programme improves students' positive body-image when used in Irish post-primary school classrooms.

What happens if I give institutional permission for this research to be conducted in my school?

If you give institutional permission, your Transition Year students will be asked to participate in the study. Firstly, their parents will be asked for written informed consent. The young person themselves will then be asked for their written informed assent.

Transition year students will take part in the study with their classmates in their usual classroom setting. A teacher will be present in the room at all times during the study.

The researcher will provide the class with a one-hour Body Project session per week for one month. The researcher will ask all students to fill out questionnaires to measure changes in their positive body-image and their belief in appearance ideal standards as a result of the programme.

Your school classes will be allocated to the intervention group or the waitlist comparison group. It is important to have a comparison group to measure the effectiveness of the intervention. If your classes are allocated to the waitlist comparison group, they will receive the Body Project intervention after the intervention group have completed it.

Is consent voluntary?

Parents and students will be informed that participation in the study is completely voluntary. They will be made aware that there is no obligation to take part, and that they can change their mind and withdraw their consent or assent at any point, without repercussions.

Students who do not participate in the study will remain in school and complete other schoolwork/lessons during the Body Project sessions.

Will this study be anonymous?

Yes. No personally identifying information will be collected at any point during the study.

How will the data be kept?

Anonymized data will be kept on an encrypted computer in compliance with General Data Protection Regulation (GDPR, 2018). All the information gathered will be kept confidential and anonymous by the researcher, who will make it available only to their supervisors and external examiners. The data will be stored for a duration of the study, and a further five years in line with the MIC Records Retention Schedule. The information collected will contribute to a Doctoral thesis, and additionally may contribute to research publications and/or conference presentations.

Are there any risks involved?

We do not anticipate any negative outcomes from participating in this study. If you have any concerns regarding students' body-image, please see the attached leaflet signposting relevant supports.

The study will abide by the Children’s First Act 2015, the Children First: National Guidance and Tusla’s Child Safeguarding: A guide for Policy, Procedure and Practice, as well as Mary Immaculate College’s Safeguarding Children Policy and Procedures and Safeguarding Statements (2019), and the Mary Immaculate College Research Ethics Committee.

Who can I contact if I have queries about the study?

If you have any queries about this research, you can contact Mathilde McCarthy by email 14158396@micstudent.mic.ul.ie ,or her Research Supervisors by email therese.brophy@mic.ul.ie and paula.seth@mic.ul.ie.

This research study has received Ethics approval from the Mary Immaculate College Research Ethics Committee (MIREC) (A22-060). If you have any concerns about this study and wish to contact an independent authority, you may contact: Mary Collins, MIREC Administrator, Mary Immaculate College, Limerick Telephone: 061-204980 E-mail: mirec@mic.ul.ie

Please sign below if you give your permission for this research study to be conducted in your school:

Signature: _____

Date: _____

Print Name: _____

Kind Regards,

Mathilde McCarthy

Mathilde McCarthy MAAP, BSc.

Trainee Educational and Child Psychologist,

Mary Immaculate College Limerick

Appendix I

Parent Consent Form and Information Sheet

Parent/ Guardian Consent Form

I agree for my child (child's name) _____ to participate in Mathilde McCarthy's research study.

The purpose and nature of the study has been explained to me in writing.

I understand that my consent is entirely voluntary. I can choose to allow my child to take part, or not to allow my child to take part.

I understand that I can change my mind, and withdraw my consent at any time, whether before the study starts or while my child is participating. It is okay to change my mind and there will not be any negative consequences as a result.

I understand that my child's anonymity will be ensured in the data collection and the study write-up. They will not be named, nor will their school or location.

I understand that if I feel that there has been a breach of data under GDPR (2018), I have the right to lodge a complaint with the Data Protection Commission who can be contacted online @ www.dataprotection.ie or by phone @ 1800437 737 .

Parent/ Guardian Signature: _____

Date: _____

PRINT NAME: _____

Parent/ Guardian Signature: _____

Date: _____

PRINT NAME: _____

Evaluating the Effectiveness of the Body Project as a classroom-based positive-body image intervention

Parent/ Guardian Information Sheet

Thank you for your interest in this study. The purpose of this information sheet is to explain what the study is about to help you to make an informed choice for your child.

Who is the researcher?

Mathilde McCarthy is a Trainee Educational and Child Psychologist from Cork completing the Professional Doctorate in Educational and Child Psychology programme in Mary Immaculate College, Limerick. Mathilde is Garda-vetted and has experience working with children and young people in schools. Mathilde is passionate about supporting youth wellbeing and is exploring the effectiveness of the Body Project in Irish post-primary schools for her Doctoral Thesis.

What is the Body Project?

The Body Project was developed by Dr Eric Stice and colleagues in 2006 in Stanford University in the USA. It is a group intervention for young people aged 14-22 years. The Body-Project is a body-acceptance programme designed to help young people to challenge cultural pressures to conform to appearance ideal standards of beauty and reduce their pursuit of unrealistic bodies. The programme encourages young people to think critically about how the media portrays the ideal body.



The programme has been delivered to over 3 million participants in more than 125 countries and it is effective in improving positive body-image and reducing belief in appearance ideal standards in females when delivered as a small group, selective intervention (Becker & Stice, 2017).

There is some research that suggests the Body Project may be used to promote positive body-image in school classrooms (Halliwell & Diedrichs, 2014). Additionally, one study has found that the Body Project could also be beneficial for males (Jankowski et al., 2017).

Why is positive body-image important for young people?

Positive body-image is a protective factor against the development of eating disorders. In Ireland, there has been a three-fold increase in children and adolescents being admitted to psychiatric care for eating disorder treatment since 2018 (Health Research Board, 2021).



What is the purpose of this study?

The purpose of this study is to find out if the Body Project programme improves positive body-image and reduces appearance ideal internalisation when delivered to students in mixed-gender classrooms in Irish post-primary schools.

What happens if I give consent for my child to participate?

If you agree to your child's participation, your child will take part in the study with their classmates and in their usual classroom setting. One of your child's teachers will be present in the room at all times during the study.

The researcher will provide the class with a one-hour Body Project session per week for one month. The researcher will ask all students to fill out questionnaires to measure changes in their positive body-image and their belief in appearance ideal standards as a result of the programme.

Is consent voluntary?

Your child's participation in this study is completely voluntary. There is no obligation for your child to participate. You have the right to change your mind and withdraw your consent at any point. With your consent, your child can choose whether they wish to participate, and if they choose to take part, they can refuse to answer certain questions or decide to withdraw from the study at any point.

If your child does not participate in the study, they will remain in school and complete other schoolwork/lessons during the Body Project sessions.



Will this study be anonymous?

Yes. No personally identifying information will be collected at any point during the study.

How will the data be kept?

Anonymized data will be kept on an encrypted computer in compliance with General Data Protection Regulation (GDPR, 2018). All the information gathered will be kept confidential and anonymous by the researcher, who will make it available only to their supervisors and external examiners. The data will be stored for a duration of the study, and a further five years in line with the MIC Records Retention Schedule. The information collected will contribute to a Doctoral thesis, and additionally may contribute to research publications and/or conference presentations.



Are there any risks involved?

There is a risk that participants may disclose body-image concerns during or after the study. If your child discloses body-image concerns during a session, relevant staff members will be notified. If you have any concerns regarding your child's body-image, please see the attached leaflet signposting relevant supports.

Research shows that eating disorder prevention efforts may sometimes unintentionally normalize unhealthy weight-control methods. To minimise this risk, the Body Project intervention will be delivered by the trained researcher and guided by the official Body Project Facilitator Script. Examples used for interactive tasks in the intervention (e.g. roleplay) will be carefully selected from

the official Facilitator Script. There will be no mention of specific weight-control methods. Additionally, the questionnaires used to gather data will not mention specific weight-control methods.

The study will abide by the Children's First Act 2015, the Children First: National Guidance and TUSLA's Child Safeguarding: A guide for Policy, Procedure and Practice, as well as Mary Immaculate College's Safeguarding Children Policy and Procedures and Safeguarding Statements (2019), and the Mary Immaculate College Research Ethics Committee.

Who can I contact if I have queries about the study?

If you have any queries about this research, you can contact Mathilde McCarthy by email 14158396@micstudent.mic.ul.ie, or her Research Supervisor by email therese.brophy@mic.ul.ie or by phone: 061-204300.

This research study has received Ethics approval from the Mary Immaculate College Research Ethics Committee (MIREC) (A22-060). If you have any concerns about this study and wish to contact an independent authority, you may contact: Mary Collins, MIREC Administrator, Mary Immaculate College, Limerick Telephone: 061-204980 E-mail: mirec@mic.ul.ie

Appendix J

Participant Assent Form and Information Sheet

Evaluating the Effectiveness of the Body Project as a classroom-based positive-body image intervention

Participant Assent Form

I agree to take part in Mathilde McCarthy's research study.

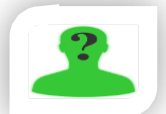
The purpose of the study has been explained to me in writing and verbally.

I understand that my assent is entirely voluntary. I can choose to take part, or not to take part.



I understand that I can change my mind about taking part, and withdraw my assent, at any time, whether before the study starts or during the study. It is okay to change my mind and nothing bad will happen if I do.

I understand that my anonymity will be ensured throughout the study and in the write-up. My name and the name and location of my school will not be mentioned in the study.



I understand that if I believe there has been a breach of data under General Data Protection Regulation (GDPR, 2018), I have the right to lodge a complaint with the Data Protection Commission who can be contacted online @ www.dataprotection.ie or by phone @ 1800437 737



Participant Signature: _____

Date: _____

PRINT NAME: _____

Word Bank

Assent: To agree

Anonymity: Nameless, people will not know who you are

Withdraw: To take back

Participate: To join in or take part

Participant: Someone who is joining in or taking part

Participant Information Sheet

Evaluating the Effectiveness of the Body Project as a classroom-based positive-body image intervention

Participant Information Sheet

This information sheet explains what the study is about to help you to decide if you would like to take part.



Who is the researcher?

Mathilde McCarthy is a Trainee Educational and Child Psychologist from Cork completing the Professional Doctorate in Educational and Child Psychology programme in Mary Immaculate College, Limerick. Mathilde is Garda-vetted and has experience working with children and young people in schools. Mathilde is passionate about supporting youth wellbeing and is exploring the effectiveness of the Body Project in Irish post-primary schools for her Doctoral Thesis.

What is the Body Project?

The Body Project was developed by Dr Eric Stice and colleagues in 2006 in Stanford University in the USA. It is a body-acceptance programme for young people aged 14-22 years. The programme encourages young people to think critically about how the media portrays the ideal body. It has been delivered to over 3 million participants in more than 125 countries and it is effective in improving positive body-image and reducing belief in appearance ideal standards in females when delivered as a small group, selective intervention (Becker & Stice, 2017).



There is some research that suggests the Body Project may be used to promote positive body-image in school classrooms (Halliwell & Diedrichs, 2014). Additionally, one study has found that the Body Project could also be beneficial for males (Jankowski et al., 2017).



What is the purpose of this study?

The purpose of this study is to find out if the Body Project programme improves positive body-image and reduces acceptance of appearance ideals when delivered to students in mixed-gender classrooms in Irish post-primary schools.

What happens if I agree to participate?



You will take part in the study with your classmates in your usual classroom setting. One of your teachers will be present in the room at all times during the study.

The researcher, Mathilde, will provide your class with a one-hour Body Project session per week for one month. Mathilde will ask all students to fill out questionnaires to measure changes in their positive body-image and their belief in appearance ideal standards as a result of the programme.

Is participation voluntary?

Your participation in this study is completely voluntary. You can choose to take part, or not to take part. If you chose to take part, you can change your mind at any time, before or during the study.



If you choose not to take part, you will remain in school and complete other schoolwork/lessons during the Body Project sessions.

Will this study be anonymous?

Yes. No personally identifying information (name or age) will be collected at any point during the study.



Are there any risks involved?

Participating in this study may make you more aware of any existing body-image concerns you may have. If you have any concerns regarding your body-image, please see the attached leaflet signposting relevant supports and speak to a trusted adult (teacher, family member).

Research shows that eating disorder prevention efforts may sometimes unintentionally normalize unhealthy weight-control methods. To minimise this risk, the Body Project intervention will be delivered by the trained researcher and guided by the official Body Project Facilitator Script. Examples used for interactive tasks in the intervention (e.g. roleplay) will be carefully selected from the official Facilitator Script. There will be no mention of specific weight-control methods. Additionally, the questionnaires used to gather data will not mention specific weight-control methods.

How will the data be kept?

All the information gathered will be kept confidential and anonymous by the researcher, who will make it available only to their supervisors and external examiners. The data will be stored on a locked computer for a duration of the study, and a further five years in line with the MIC Records Retention Schedule and General Data Protection Regulation (GDPR, 2018). The information collected will contribute to a Doctoral thesis, and additionally may contribute to research publications and/or conference presentations.



Who can I contact if I have questions or complaints about the study?

If you have any queries about this research, you can contact Mathilde McCarthy by email 14158396@micstudent.mic.ul.ie ,or her Research Supervisor by email therese.brophy@mic.ul.ie or by telephone: 061-204300.

This research study has received Ethics approval from the Mary Immaculate College Research Ethics Committee (MIREC) (A22-060). If you have any concerns about this study and wish to contact an independent authority, you may contact: Mary Collins, MIREC Administrator, Mary Immaculate College, Limerick Telephone: 061-204980 E-mail: mirec@mic.ul.ie

Appendix K

BAS-2

Body Appreciation Scale 2 (BAS-2; Tylka & Wood-Barcalow, 2015)

Directions for participants: Please circle a number to indicate whether the question is true about you never, seldom, sometimes, often, or always.

For each item, the following response scale should be used:

1 = Never

2 = Seldom

3 = Sometimes

4 = Often

5 = Always

Q.1: I respect my body 1 2 3 4 5

Q.2: I feel good about my body 1 2 3 4 5

Q.3: I feel that my body has at least some good qualities 1 2 3 4 5

Q.4: I take a positive attitude towards my body 1 2 3 4 5

Q.5: I am attentive to my body's needs 1 2 3 4 5

Q.6: I feel love for my body 1 2 3 4 5

Q.7: I appreciate the different and unique characteristics of my body. 1 2 3 4 5

Q.8: My behaviour reveals my positive attitude toward my body;

for example, I hold my head high and smile. 1 2 3 4 5

Q.9: I am comfortable in my body 1 2 3 4 5

Q.10: I feel like I am beautiful even if I am different from media images of attractive people

(e.g., models, actresses/actors). 1 2 3 4 5

Appendix L

SATAQ-R-4

Sociocultural Attitudes Towards Appearance Questionnaire Revised (SATAQ- R 4; Schaefer et al., 2017).

Directions:

Please read each of the following items carefully and circle the number that best reflects your agreement with the statement.

Definitely Disagree = 1

Mostly Disagree = 2

Neither Agree Nor Disagree = 3

Mostly Agree = 4

Definitely Agree = 5

- | | | | | | |
|--|---|---|---|---|---|
| 1. It is important for me to look athletic. | 1 | 2 | 3 | 4 | 5 |
| 2. I think a lot about looking muscular. | 1 | 2 | 3 | 4 | 5 |
| 3. I want my body to look very thin. | 1 | 2 | 3 | 4 | 5 |
| 4. I want my body to look like it has little fat. | 1 | 2 | 3 | 4 | 5 |
| 5. I think a lot about looking thin. | 1 | 2 | 3 | 4 | 5 |
| 6. I spend a lot of time doing things to look more athletic. | 1 | 2 | 3 | 4 | 5 |
| 7. I think a lot about looking athletic. | 1 | 2 | 3 | 4 | 5 |
| 8. I want my body to look very lean. | 1 | 2 | 3 | 4 | 5 |

9. I think a lot about having very little body fat. 1 2 3 4 5

10. I spend a lot of time doing things to look more muscular. 1 2 3 4 5

Answer the following questions with relevance to your FAMILY (include parents, brothers, sisters, relatives):

11. I feel pressure from family members to look thinner. 1 2 3 4 5

12. I feel pressure from family members to improve my appearance. 1 2 3 4 5

13. Family members encourage me to decrease my level of body fat. 1 2 3 4 5

14. Family members encourage me to get in better shape. 1 2 3 4 5

Answer the following questions with relevance to your PEERS (include close friends, classmates, and other social contacts):

15. My peers encourage me to get thinner. 1 2 3 4 5

16. I feel pressure from my peers to improve my appearance. 1 2 3 4 5

17. I feel pressure from my peers to look in better shape. 1 2 3 4 5

18. I get pressure from my peers to decrease my level of body fat. 1 2 3 4 5

Answer the following questions with relevance to the MEDIA (include television, magazines, the internet, movies, billboards, and advertisements):

- | | | | | | |
|--|---|---|---|---|---|
| 19. I feel pressure from the media to look in better shape. | 1 | 2 | 3 | 4 | 5 |
| 20. I feel pressure from the media to look thinner. | 1 | 2 | 3 | 4 | 5 |
| 21. I feel pressure from the media to improve my appearance. | 1 | 2 | 3 | 4 | 5 |
| 22. I feel pressure from the media to decrease my level of body fat. | 1 | 2 | 3 | 4 | 5 |

