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## Examining the feasibility, acceptability, and effectiveness of a self-compassion intervention in physical education class for adolescent girls

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A thesis submitted in partial fulfillment of the requirements for the Master of Arts degree in Kinesiology

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## Abstract

In adolescence, enrollment in Physical Education (PE) drastically drops in the transition from grade 9 to 10 – particularly for girls who disengage at higher rates than males after completing provincial PE curricular requirements. This is problematic since engagement in PE has the potential to shape young girls’ perceptions of movement, their bodies, and coping with life’s difficulties through physical activity (PA). Body image distress may be one reason to explain PE disengagement and therefore, warrants intervention. Self-compassion (SC) is an emotion regulation strategy that helps deal with body image distress and may be an effective strategy to help girls cope with these negative experiences. The purpose of this pilot study was to examine the feasibility, acceptability, and effectiveness of a SC psychoeducation intervention in PE. Grade 9 and 10 girls enrolled in PE (n = 72) participated in a pragmatic one-group pre-test post-test design. The intervention consisted of a 60-minute SC workshop and 1-month of homework exercises. There was demonstrated feasibility evidence whereby, all available classes and teachers agreed to host the workshop and most participants completed the pre-survey (97.2% of 72), workshop (79.2% of 72), and group feedback session (66.7% of 72), and homework exercises (18.1% of 72). The intervention demonstrated acceptability as indicated by a range of workshop metrics. As expected in a single-arm pilot study, evidence of preliminary effectiveness was limited, with non-significant pre-post differences and very small effect sizes. The knowledge gained from this study may enhance capacity for delivery of scalable curriculum-informed PE promotion strategies which may be broadly transferrable to PA programs.

## Keywords

physical education, self-compassion, body-related distress, adolescent girls

## Summary for Lay Audience

Physical education (PE) is a developmentally important school-related physical activity that builds on motor skills and health-promotion. It is important for one's physical, social, and mental health. However, girls are dropping out of PE class once it becomes an optional course after grade 9. This is an issue because PE may be one of the only places these girls are physically active (PA) and/or are receiving health promoting messages and education. PE classes have been an area that girls report and recall many negative experiences around their body (i.e., body commentary, teasing, gym clothing, anxiety related to body image, dissatisfied with one's body shape or size). One area of intervention to help alleviate these body image issues may be self-compassion, which has been used to help target body image in movement settings. Self-compassion is an effective self and emotion regulation strategy which encompasses treating oneself with kindness, recognizing one's shared humanity, and being mindful when considering negative aspects of oneself. However, to our knowledge no physical education and self-compassion brief intervention has been conducted in girls high school PE class. The aim of this study was to determine if a brief self-compassion intervention is feasible, acceptable, and effective in a physical education setting. Grade 9/10 girls (N=51) participated in a 60-minute self-compassion workshop, and a 75-minute group feedback interview following the workshop. The girls completed survey measures of PE likelihood of re-enrollment, body image coping and self-compassion (before workshop, after workshop, and 1 month later). They also were given a homework manual to complete self-compassion tasks over the month. The survey after the workshop also included questions assessing how the workshop was received, and for the end of intervention survey, the girls were asked open ended questions on effectiveness of the workshop and homework. The study met all the feasibility, and acceptability criteria as indicated by high scores on workshop acceptability, ethical conduct, effectiveness, limited negative side effects, material being beneficial and presented in a useful way. The majority of the girls learned new self-compassion tools, but felt a follow up workshop might be beneficial to help retain the practice of self-compassion.

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# Chapter 1

## 1 Introduction and Rationale

Participation in physical activity is associated with numerous physical and psychological benefits (Eime et al., 2013), yet girls<sup>1</sup> are more physically inactive than boys, and these reduced rates of participation further increase with age. In adolescence, girls also disengage from physical education (PE) – a developmentally important school-related physical activity that builds on motor skills and health-promotion. Enrollment in PE drastically drops in the junior years of high school with approximately 50% of girls remaining involved after completing provincial PE curricular requirements (Dwyer et al., 2006). This is problematic since engagement in PE, and physical activity more broadly, have the potential to shape and guide young girls’ perceptions of movement, their bodies, and coping with life’s difficulties.

Research suggests that many girls report and recall negative experiences around their bodies in PE – which may negatively contribute to the gender disparities in PE participation (Cox et al., 2011). During adolescence, girls’ bodies are going through significant changes (e.g., development of breasts, widening of the hips, and growth of pubic hair), that often deviate from the societal thin ideal, which can cause them to feel self-conscious and uncomfortable with their bodies (Wolf & Long, 2016). This can be compounded by unrealistic beauty standards in the

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<sup>1</sup> Note: For the purposes of this project, biological sex terminology (i.e., female) is used in the protocol and study documents because the London District Catholic School Board (LDCSB) makes a sex distinction for physical education class participation (i.e., female vs. male). However, we recognize that gender is a social construct and girls are uniquely socialized, particularly around experiences in and with the body, hence the need for gender-specific body image coping strategies and interventions. Throughout this thesis, gender terms will be used (i.e., girl, girls) wherever possible to capture the social construction of the gendered experience in PE. In instances where we are confined by biological sex conceptualizations adopted by the LDCSB (i.e., methods, results), we will adopt sex-based language (i.e., female).

media, which can create pressures to conform to a particular idealized body type (Franchina & Coco, 2018). Navigating these changes can be quite difficult, and images and messages that promote narrow and idealized version of beauty can lead to a sense of inadequacy, low self-worth and increased body-related distress, as well as an increased risk of disordered eating and other negative health outcomes (Diedrichs et al., 2011, Dohnt & Tiggemann, 2006). In fact, a longitudinal study by Kearney-Cooke & Tieger (2015) showed that around 50% of 13-year-old girls reported being unhappy with their body, and this number grew to nearly 80% by the time the girls reached 17 years old. As such, participation and engagement in PE may be negatively impacted by girls' body image experiences in this developmental phase.

Indeed, PE environments can be highly evaluative and place large emphasis on the body, and may lead to experiences of social physique anxiety, decreased self-esteem, physical incompetency, and body shame (Kerner et al., 2018). Negative attitudes towards PE have also been linked to coeducational classes and dissatisfaction with the uniforms (Casey et al., 2009; Eime et al., 2010; Eime et al., 2013). Collectively, these factors may contribute to increased body image concerns and disorders more broadly, as well as negatively impact physical activity experiences and participation (Gualdi-Russo, 2022; Foley-Davelaar, 2021). The accumulation of these negative experiences in PE may impact physical activity participation beyond adolescence, and across different physical activity contexts. Therefore, it is imperative to develop strategies to improve girls' PE experiences and consequent lifelong participation in physical activity.

To date, research has focused on pedagogic interventions that can be utilized to enhance PE engagement, given that PE has been identified as an appropriate site to work with body image (Barker et al., 2021). However, the pedagogic interventions have been solely focused on either cognitive and/or behaviourist principles, embodiment, critical reflection, or physical activity as a means for improved body image (Aartun et al., 2022; Öhman et al., 2014). Self-compassion is one potential strategy that has not been tested in the PE context, despite being an effective self and emotion regulation strategy that is useful in managing difficult body-related experiences (Neff, 2011). Self-compassion entails treating oneself with kindness, recognizing one's shared humanity, and being mindful when considering negative aspects of the self (Neff, 2011), and may provide girls with the tools to overcome potential body-related distressing moments in PE. Literature has consistently demonstrated a negative association between self-compassion and

body image concerns (Braun et al., 2016), such as higher levels of body self-compassion are associated with lower body comparisons and greater appreciation for body functionality in adolescent girl athletes (Eke et al., 2019), greater and intrinsic motivations for exercise (Cox et al., 2019). Further, research has consistently demonstrated the utility of self-compassion interventions in reducing body image concerns (Turk & Waller, 2020; Toole et al., 2021; Seekis et al., 2020; Reis et al., 2015). To date, there is an absence of research examining the utility of self-compassion strategies in targeting negative body image in PE settings. As such, investigations of cultivating self-compassion may support girls in dealing with potential body distressing situations in PE are warranted.

## 1.1 Overview of Research Aims

The objective of this research is to examine the acceptability, feasibility, and effectiveness of a group-based self-compassion-focused intervention among adolescent girls engaged in PE class. Specifically, the present study will (i) explore the acceptability and feasibility of a group-based self-compassion focused workshop integrated in the PE curriculum, and (ii) assess the effectiveness of this intervention via changes in self-compassion, body image threats and coping, PE likelihood of re-enrollment, PA behaviour and the girls' overall experiences completing the intervention.

## Chapter 2

### 2 Review of the Literature

#### 2.1 Physical Education

Physical education (PE) is a developmentally important school-related Physical Activity (PA) that provides numerous benefits for youth. It has the potential to shape and guide young girl's perceptions of movement, their bodies, and coping with life's difficulties through physical activity. Furthermore, PE has the potential to shape cognitive development, improve social skills, enhanced mental health and healthy habits for lifelong benefits (Donnelly et al., 2016; Sallis et al., 1997). PE provides students the opportunity to interact with their peers, while also encouraging regular exercise, healthy eating, and stress management (e.g., reducing symptoms of depression and anxiety, while promoting feelings of well-being) (Bailey et al., 2013). PE is typically a space where girls may experience their first exposure to physical activity; thus, cultivating awareness for how their body and others are moving through space. The literature supports the importance of incorporating PA into daily life for individuals of all ages to promote overall health and well-being, however, girls appear to be disengaging from PE, and PA more generally (Eime et al., 2020), at a higher rate than age matched boys (Cowley et al., 2021).

##### 2.1.1 PE Participation Trends in Young Girls

Girls are more likely than boys to drop out of PE class, in fact, PE drastically drops in the transition from grade 9 to 10 with approximately 50% of girls remaining involved after completing provincial PE curricular requirements (Dwyer et al., 2006). One study found that girls were more likely than boys to be disengaged from physical education and to report negative experiences in the class, which could contribute to higher dropout rates (Owen et al., 2018). Reasons for disengagement are often due to a combination of psychological, social, and environmental barriers (Mitchell et al., 2015). Both teachers and male peers can contribute to disengagement, whereby, teachers may inadvertently create an environment that is unwelcoming to girls by favoring boys in terms of attention and resources, and promoting activities that are traditionally seen as more masculine (Azzarito et al., 2006). Similarly, male peers can create a sense of discomfort and exclusion for girls by making comments or engaging in behaviors that

are derogatory or objectifying (Cairney et al., 2012; Oliver & Thelwell, 2010). Some other common factors that have been suggested as potential reasons for the higher dropout rate among girls in physical education class are similar to physical activity pressures girls experience outside the school environment, such as sport (e.g., uniform standards, body ideals, teasing, etc.) (Azzarito et al., 2006).

Girls may be subjected to gender stereotypes and social expectations that discourage them from participating in physical activities, such as expectations to be less competitive and less interested in sports, which can result in lower motivation to participate (Ennis, 2017). Girls are also socialized to place more importance on their physical appearance and beauty standards which may impact how girls form their identities in life and physical activity (Walseth et al., 2015). In fact, recent research indicates that these discourses are embedded in PE, whereby norms in the PE environment influence how girls socially construct their bodies and femininity as well as the physical activities that they choose to engage in (Anschutz et al., 2011; Walseth et al., 2015). Therefore, the PE context may be a cause and a potential site of intervention to the problem of negative body image. Addressing these factors and creating a supportive and inclusive environment in PE classes could help to reduce the dropout rate among girls and encourage greater participation in physical activity more broadly.

## 2.2 Body Image and its Influences

Body image is a complex and multi-dimensional construct that encompasses a person's thoughts, feelings, beliefs, and perceptions about their own body shape, size and overall appearance (Cash, 2005). It refers to an individual's subjective perception and evaluation of their own physical appearance and comprises of cognitive, affective, behavioural, and perceptual aspects. The cognitive component of body image involves a person's thoughts and beliefs about their own body, including their level of satisfaction or dissatisfaction with their appearance, their perceived attractiveness, and their confidence in their abilities (Cash & Pruzinsky et al., 2002). The affective component includes a person's emotional response to their body, such as feelings of pride, shame, or embarrassment (Sabiston et al., 2022). The behavioural component refers to a person's behaviors related to their body, such as dieting, exercise, or cosmetic procedures (Cash, 2005). These behaviours can be influenced by a person's cognitive and affective experiences related to their body (Vocks et al., 2007). The perceptual component involves a person's



perception of their own body, including their ability to accurately perceive their size and shape (Thompson & Gardner, 2002).

Body image is influenced by various factors, including media representations of beauty, cultural norms, family and peer attitudes, personal experiences, and psychological factors. Girls as young as six years old are influenced by the media's idealized portrayal of beauty and begin to internalize the thin ideal (Dohnt & Tiggemann, 2006). Several factors can contribute to negative body image, including societal pressures to conform to certain beauty standards, exposure to unrealistic and idealized images in media, and personal experiences such as trauma, bullying or discrimination (Dittmar & Halliwell, 2006; Fardouly & Vartanian, 2016). Furthermore, research by Clark and Tiggemann (2008) followed a group of girls aged 9-12 over a year, measuring body dissatisfaction, media exposure, appearance conversations with friends and family, and personality traits (e.g., perfectionism and self-esteem). The authors found that sociocultural and individual psychological factors play a role in the development of negative body image, with media exposure and appearance conversations predicting body dissatisfaction, while perfectionism and low self-esteem exacerbate it (Clark & Tiggemann, 2008). Negative body image has been linked to depression and anxiety in adolescent girls (Schwartz & Brownell, 2004), suggesting that girls who are unhappy with their bodies may experience low self-esteem, negative self-talk, feelings of worthlessness, substance abuse (Kostanski & Gullone, 1998), and poor academic performance (Bearman et al., 2006).

While much of the existing literature has focused on negative body image and body image concerns, another component of one's overall body image includes positive body image – which refers to a sense of satisfaction, acceptance, and appreciation of one's body, irrespective of how well it conforms to societal beauty standards (Tylka & Wood-Barcalow, 2015). Girls with a positive body image tend to have a healthy attitude toward their body, accept and celebrate their unique features, and feel comfortable and confident in their own skin (Andrew et al., 2016; Wood-Barcalow & Tylka, 2010). Additionally, they are less likely to engage in unhealthy weight control behaviors, develop eating disorders, or experience low self-esteem and anxiety related to their body image (Wertheim et al., 2009). Positive body image is essential for the overall well-being and development of young girls, including their social, emotional, and physical health (Tort-Nassarre et al., 2023). Research suggests that promoting positive body

image through interventions such as media literacy education, cognitive-behavioral therapy, and self-compassion training can lead to improved well-being and quality of life (Cash & Pruzinsky, 2002; Tylka & Wood-Barcalow, 2015).

In this thesis, “body image distress” or “body-related distress” will be used to refer to a broad conceptualization of negative attitudes, perceptions, and experiences pertaining to the body. For example, body image distress could be experienced as body comparisons, negative body-related emotions, body dissatisfaction, negative evaluations, stigmatizing body-related events, etc. Self-compassion has been proposed as a key strategy for coping with body image distress, however, current findings suggest that self-compassion is not widely or effectively practiced as a body image distress coping strategy (Seekis et al., 2022). Therefore, body image coping methods which address body image distress are imperative for future work as body image distress is associated with numerous negative mental health outcomes (e.g., depression (Jackson et al., 2014), and low physical health-related quality of life (Wilson et al., 2013).

### 2.2.1 Body Image Coping

Body image coping refers to the ways in which individuals respond to body-related threats and stressors to minimize their psychological, emotional, and physical burdens. According to Cash (2005), body image coping refers to the strategies that people use to deal with discrepancies between their actual body and their ideal body. Coping strategies can be cognitive or behavioral and can have positive or negative outcomes. Lazarus and Folkman’s (1984) model divides coping strategies into problem-focused and emotion-focused, while other classification systems include approach and avoidance. In the context of body image stressors, individuals use cognitive and behavioral strategies to cope, but there is a lack of research on coping and body image, especially in young girls.

Three coping strategies have been identified in response to body image distress: (i) behavioural coping strategies; (ii) cognitive coping strategies; and (iii) avoidant coping strategies (Cash et al., 2005). Behavioural coping strategies are actions that individuals take to change their body or their appearance, such as exercising, dieting, or cosmetic surgeries, or avoiding risky behaviors like smoking or excessive drinking (Cash et al., 2005). Cognitive coping strategies are thought patterns that individuals use to cope with negative thoughts about their body, such as

positive self-talk, cognitive restructuring, and mindfulness meditation (Cash et al., 2005). Lastly, avoidant coping strategies are efforts to avoid thinking about or addressing body dissatisfaction, such as avoiding mirrors or social situations where one's body may be judged (Cash et al., 2005). While these avoidant strategies may provide temporary relief, they are not effective long-term solutions. Cash and colleagues (2005)'s research has shown that the most effective body image coping are those that involve a combination of cognitive and behavioral coping. In particular, individuals who engage in positive self-talk, cognitive restructuring, and self-acceptance, while also engaging in healthy behaviors like exercise and balanced eating, tend to have the most positive body image outcomes (Wood-Barcalow et al., 2010).

Research assessing body image coping strategies is limited in the adolescent age range. Self-compassion has been one coping mechanism which encourages girls to be kind and understanding towards themselves, even when they make mistakes or feel insecure about their appearance (Ewert et al., 2021). Self-compassion is associated with better body image and overall well-being (Bluth & Blanton, 2014). Another coping strategy is the focus on body functionality which encourages girls to focus on what their body can do rather than just what it looks like. Research has suggested that emphasizing body functionality can improve body image and reduce body image distress (Tylka, 2018). Additionally, having young girls identify and challenge negative thoughts about their appearance and challenge them with more realistic and positive thoughts for example, cognitive behavioural techniques can improve body image (Stice et al., 2006). Since social media is linked to higher levels of body image distress (Chrisler et al., 2013), encouraging girls to limit their time on social media platforms that promote unrealistic beauty standards and engage in media literacy activities to help them critically evaluate media messages is imperative (Perloff, 2014). Furthermore, cultivating positive body image culture whereby, encouraging girls to participate in activities and communities that promote body positivity and self-acceptance has been suggested to improve body image and self-esteem (Tiggemann & Slater, 2014). As noted, there have been studies that have explored various coping strategies including; social support, media literacy, physical activity, and cognitive restructuring, however, in the PE context there has yet to be an intervention that implements self-compassion; an emotion regulation strategy that is useful in managing difficult body related experiences (Bluth & Neff, 2018).

### 2.2.2 The Role of Body Image in PE

To address body-related distress in young girls, research emphasizes the importance of promoting positive body image and self-esteem while encouraging healthy behaviors like regular exercise (Barker et al., 2022). Schools, parents, and healthcare providers play a crucial role in this regard, as they can contribute to reducing the risk of negative outcomes associated with body-related distress in young girls (Bearman et al., 2006). Unfortunately, studies have shown that body image concerns are linked to lower levels of PA in adolescent girls (Gualdi-Russo et al., 2022). Moreover, girls who are dissatisfied with their bodies are less likely to engage in physical activity and are more likely to drop out of PE classes (Martin & Kulinna, 2003). This is particularly challenging as PE classes can create social pressures for girls, leading to feelings of self-consciousness and discomfort while changing in front of others or participating in activities that draw attention to their bodies (Olafson, 2002). Consequently, these factors contribute to anxiety, lack of engagement in physical activity, and further exacerbation of negative body image and self-esteem issues (Barker et al., 2022; Lunde et al., 2023).

Observational research has utilized various methods such as surveys and semi-structured interviews to delve into body image in the PE setting (Johnson et al., 2013; Schvey et al., 2014, Diedrichs & Lee, 2011, Lunde et al., 2023). It is important to note that the observational research done in PE settings has mostly focused on global body image versus body image as it relates to PE contexts. Using semi-structured interviews, Johnson and colleagues (2013) assessed the ways individuals resist discourses that relate to bodies in PE contexts, which highlighted the importance of interventions aimed at promoting positive body image, and incorporating strategies that enable individuals to resist and challenge body-related discourses. Additional observational research shows that adolescent girls with negative body image are less likely to participate in PE class, and more likely to experience anxiety and embarrassment when participating in class (Schvey et al., 2014). Furthermore, high school girls who perceived their PE teachers as emphasizing appearance-related fitness goals (such as weight loss or toning) were more likely to report body dissatisfaction and disordered eating behaviors (Diedrichs & Lee, 2011). More recently, Lunde and colleagues (2023), found that students who had higher levels of autonomous motivation and positive body image were less likely to miss physical education classes without an excuse. In contrast, those with lower levels of autonomous motivation and

negative body image were more likely to have unexcused PE absences. Overall, the observational research to date in the PE and body image area highlights the impact of body image in the PE setting on individual's participation, well-being, and motivation. This research underscores the importance of reducing negative body image, challenging societal discourses around the body, and focusing on building positive body image rather than appearance-related goals.

### 2.2.3 Body Image Interventions for Adolescents

Guest and colleagues (2022) conducted a recent systematic review aimed to evaluate interventions that promote positive body image among children and adolescents. The review analyzed 43 studies conducted between 2000 and 2021, including school-based programs, media literacy interventions, and cognitive-behavioral therapies. Most of the interventions were effective in improving body image-related outcomes, such as reducing body dissatisfaction and increasing body appreciation. Specifically, the interventions included approaches such as cognitive dissonance (Amaral et al., 2019, Halliwell et al., 2015, Regehr et al., 2020), yoga (Cox et al., 2017, Halliwell et al., 2018), and most commonly psychoeducation (Buchholz et al., 2008, Diedrichs et al., 2016, Franko et al., 2013, Guest et al., 2021, McVey et al., 2003a, McVey et al., 2003b, Sundgot-Borgen et al., 2019, Yager et al., 2019), and were directed by trained professionals, researchers, or university students. The intensity of the interventions varied from single to multiple sessions, with session lengths ranging from 30-90 minutes. Only 6 of these studies were conducted with female-only samples (Amaral et al., 2019, Buchholz et al., 2008, Diedrichs et al., 2016; Halliwell et al., 2018; McVey et al. 2004; McVey et al., 2003). Both McVey and colleagues (2003a) and McVey et al., (2003b) studies used the same manualized, class-based, peer support intervention "Girl Talk", and Halliwell et al., (2015) and Amaral et al., (2019), used adapted versions of the "The Body Project" (Stice & Presnell, 2007). Both of these interventions were highlighted in the school context and provide a basis for body image intervention workshops in this setting.

Specifically, the Body Project (Stice & Presnell, 2007) intervention is a cognitive dissonance-based eating disorder prevention program at reducing body dissatisfaction and promoting positive body image among adolescent and young adult women. It involves four group sessions where participants engage in verbal, written, and behavioral exercises that

challenge societal beauty ideals and promote body acceptance. It has reduced eating disorder risk factors, symptoms, and future ED onset (Becker & Stice, 2017). The Girl Talk (Mcvey, 2003a) intervention is a manualized, class-based, peer support program aimed at improving positive body image among adolescent girls. It involved small group discussions and activities led by trained peer facilitators, and focused on media literacy, healthy eating and physical activity. The most recent replication of the study by McVey and colleagues (2003b), did not lead to improvements in body esteem or eating attitudes and behaviors beyond what was expected by the control group. The authors suggested that the effectiveness may in part have been reduced because a higher number of intervention participants were weight preoccupied. Collectively, these studies highlight the importance of school as an adaptive environment for body image interventions to be conducted. However, future work should focus on body image coping strategies (i.e., self-compassion) as helpful tools for individuals who struggle with negative body image and can help promote more positive sustainable changes in their relationship with their bodies.

#### 2.2.4 Body Image Interventions in PE to Improve Engagement

Body image interventions in PE aim to reduce negative body image, promote positive body image, and increase physical activity levels, which may in turn reduce negative health outcomes (Kerner et al., 2018). There has been an increased push over the past 10 years to use PE as a site of intervention to promote adaptive body image in youth by creating inclusive and supportive environments, incorporating a variety of physical activities, and providing opportunities for students to learn and practice skills that can contribute to more adaptive body image (Barker et al., 2022). A recent narrative review by Barker and colleagues (2022), examined the impact of PE on body image, and outlined various interventions that have been used in PE to reduce body image issues and improve engagement. In the review, the authors discussed several factors that influence body image in PE, such as teacher attitudes, gender, and body size diversity in the classroom, which can have both positive and negative effects on body image, depending on method of instruction and the attitudes of the teacher and peers.

Barker and colleagues (2022) also summarized various intervention studies that have targeted body image in the PE context. They have primarily focused on cognitive and/or behavioural interventions, embodied principles, critical reflection and, the use of PA as a method

of improving body image. Existing interventions have focused on practical-based lessons covering benefits of physical activity, goal setting, developing exercise plans, relation of self-concept to exercise, and the influence of peers and media on body image (Annesi et al., 2015). Interventions that consisted of theory lessons on roles of gender and the role of the media (Azzarito et al., 2016) had positive effects on promoting more equitable participation in PE classes, with both girls and boys reporting increased levels of enjoyment, motivation and engagement in physical activity. Problem solving and confidence-building activities, such as climbing techniques (Baena – Extremera et al., 2012), walking and running (Bonavolata et al., 2021), and modified games also increased student's physical activity levels (Catunda et al., 2017). Catunda and colleagues (2017), found that modifications by reducing the number of players, increasing the size of the playing area and limiting the use of certain body parts showed higher levels of physical activity than the control group, both during the intervention period and at end of intervention assessments.

Yoga lessons have also been used to help students focus on physical experiences (Cox et al., 2017), as well as a focus on breathing and relaxation (Halliwell et al., 2018). Cox and colleagues (2017) found moderate decreases in trait body surveillance and increases in self-worth and body appreciation in yoga participants after a 12 week PE program. In interventions where body image psychoeducation sessions have been implemented (Robertson & Thomson, 2014), and classroom-based lessons that involve exploring body image in the body-self relationship (Schubring et al., 2021), participants showed significant improvements in body appreciation and self-esteem, as well as reductions in appearance comparison and internalization of appearance ideals. Other classroom-based lessons have consisted of workshops on body image, media literacy, lifestyle (Sundgot-Borgen et al., 2018), body image as an aspect of the embodied self (Wiltshire et al., 2017) and body image as a part of the way in which individuals come to know themselves and their lives (Öhman et al., 2014). These interventions show promise for classroom-based lessons which include psychoeducation as a way to help participants learn and explore their relationship with their body.

Overall, these studies as summarized by Barker and colleagues (2022) highlight the importance of adopting a body-focused approach in physical education and examining how gender, identity, and embodiment intersect with student experiences. The studies also underscore

the need to examine the contextual factors that influence participants' participation in physical activity and the impact of health education curriculums on student health outcomes.

Additionally, the studies point towards the need to understand the impact of emerging technologies, such as social media, on body image perceptions and the development of prevention and intervention strategies for negative body image. However, of all reviewed studies, a noted area missing was specific to body image coping strategies that entail helping participants, specifically girls, cultivate self-compassion. Specifically, there has been no previous examination on how cultivating a compassionate view of the self may be useful in managing body-related distress during PE with adolescent girls. Using self-compassion to treat oneself with kindness, understanding, and acceptance during times of suffering or perceived inadequacy may be useful in coping with body image issues in the context of PE.

## 2.3 Self-Compassion

### 2.3.1 Self-Compassion as a Body Image Coping Strategy

Self-compassion entails treating oneself with kindness, recognizing one's shared humanity, and being mindful when considering negative aspects of oneself or facing difficult situations or failures (Neff, 2011). Self-compassion is proposed to consist of three main tenets, self-kindness (i.e., expressing care and understanding toward the self in times of distress), mindfulness (i.e., objectively viewing the distress as part of life), and common humanity (i.e., recognizing that distress is a shared part of the human experience). An individual may respond self-compassionately to a distressing event by re-framing the experience with phrases that capture each tenet of self-compassion (e.g., "May I be kind and caring to myself as I cope with this difficult situation" (self-kindness), "In this moment, I feel frustrated and hurt" (mindfulness), "Feeling this way is a normal part of the human experience and I am not alone" (common humanity)).

A recent review by Braun and colleagues (2016) summarized 28 studies, which mostly focused on undergraduate women, and reported that self-compassion is consistently associated with lower levels of negative body image, including body dissatisfaction and social comparison, body surveillance, body shame, internalized media and interpersonal thinness pressures, thin-ideal internalization, social appearance comparisons, and drive for thinness. This study also



highlighted the protective role of self-compassion related to eating behavior, whereby, self-compassion is inversely related to eating disorder related outcomes directly, by preventing the initial occurrence of risk factors, and by interacting with and disrupting the mechanisms through which risk factors operate to impact disordered eating (Braun et al., 2016). The protective role of self-compassion was also highlighted in a review by Turk and Waller (2020), whereby, 21 studies indicated that higher levels of body image concerns are related to lower levels of self-compassion. Moreover, when participants participated in self-compassion interventions, they had more improvement in body image than the control groups, with longer interventions being no more effective than brief ones (Turk & Waller, 2020).

Given the role self-compassion plays on body image factors, it can be hypothesized that self-compassion will be an adaptive coping mechanism for body image distress. The highlighted studies (Braun et al., 2016; Turk & Waller, 2020) show promise for using self-compassion as a mechanism to protect maladaptive behaviors, however, the samples mostly consisted of adult women. As such, investigations of how cultivating self-compassion may support girls in dealing with potential distressing situations in PE are warranted.

### 2.3.2 Self-Compassion in the Promotion of PA

Self-compassion has been linked to numerous positive outcomes, including greater psychological well-being, less anxiety and depression, and better relationships (Neff, 2011). In addition to these mental health benefits, there is also evidence to suggest that self-compassion is associated with greater engagement in physical activity and healthier lifestyle choices (Sirois et al., 2015). A recent systematic review and meta-analysis by Wong and colleagues (2020) found that in all of the 25 studies which met quality criteria, self-compassion and physical activity were positively correlated. The results indicated that age and gender did not have a significant impact on the association between physical activity and self-compassion. However, literature has pointed out that older adolescents tend to have lower self-compassion, especially older girls which in part may be due to negative evaluations of the body (Bluth et al., 2017).

Since self-compassion has been associated with lower levels of negative body image, which can be a barrier to physical activity engagement, targeting negative body image through self-compassion may lead to greater engagement in physical education (Braun et al., 2016). By

practicing self-compassion, girls may be more likely to perceive themselves as competent and autonomous, less likely to engage in negative self-talk about their physical appearance, and more motivated to engage in physical activity (Mosewich, 2020). One way that self-compassion may promote physical activity is by reducing negative self-talk and increasing motivation to exercise and appreciation for body functionality (Mosewich, 2020). For example, individuals who are self-compassionate may be more likely to view physical activity as a way to care for their mental health and physical health rather than as a punishment for not meeting the standardized body ideal (Magnus et al., 2010; Wong et al., 2023). This shift in mindset may increase motivation to exercise and promote a more positive attitude towards physical activity (Sirois & Duarte, 2015; Magnus et al., 2010). In addition, self-compassionate individuals may be more likely to continue exercising even after experiencing setbacks or injuries, as they are less likely to give up in the face of adversity (Semenchuk et al., 2018).

Overall, self-compassion appears to be a promising approach to promoting physical activity and healthier lifestyle choices. By treating oneself with kindness and understanding, individuals may be better able to overcome obstacles and maintain a long-term commitment to physical activity. These findings suggest that incorporating self-compassion into physical education and health promotion programs may be a valuable strategy for improving overall health and well-being, while also playing a role in improving engagement in PE among young girls.

### 2.3.3 Self-Compassion in Sport

In addition to physical activity contexts more broadly, self-compassion has become an increasingly popular topic in the world of sport psychology, as it has been shown to be a valuable tool for promoting athlete well-being and performance. In particular, studies have shown that self-compassion can be particularly beneficial for adolescent girls who are participating in sport (Cormier et al., 2022), as these societal pressures to conform to idealized body standards, having negative effects on their body image and well-being can be even more pronounced in sport as athletes may feel pressure to achieve certain body shapes or sizes to excel in their sport.

Cormier and colleagues (2022) recently conducted a scoping review which assessed self-compassion in sport. Some studies found that lower-level sport athletes had higher levels of self-

compassion versus elite level sport athletes (Ferguson et al., 2022; Gummelt, 2017), however, other studies found no differences in self-compassion based on athlete level of competition (Jansen et al., 2021; Pila et al., 2022; Stamatis et al., 2020; Tingaz & Cakmak, 2021; Walton et al., 2020). Self-compassion levels were shown to vary by type of sport, whereby, girls in individual sports scored higher on negative self-compassion subscales than team sports (Gummelt, 2017), while the other did not (Ferguson et al., 2022). The remaining studies did not find differences between athletes competing in different types of sport (Huysmans & Clement, 2017; Mosewich et al., 2021). While there is conflicting results for level of competition and type of sport on self-compassion levels, self-compassion was positively related to a variety of adaptive psychological factors in sport, and alternatively, lower levels of self-compassion were associated with maladaptive constructs in sport (Cormier et al., 2022). While most of the reviewed studies were in adult populations, the results are expected to hold in adolescent samples.

For example, a study by Pila and colleagues (2022), explored the relationship between self-compassion and body-related self-conscious emotions among adolescent girls in sport. The results of the study showed that self-compassion was negatively related to body-related self-conscious emotions, such as shame and embarrassment, at both the within-person and between-person levels. Additionally, the study found that self-compassion moderated the relationship between within-person variation in body-related self-conscious emotions and negative affect, such that the negative effects of body-related self-conscious emotions on negative affect were weaker among individuals who had higher levels of self-compassion. Another study conducted by Neff and colleagues (2019) examined the effectiveness of a self-compassion intervention in improving well-being and reducing stress in adolescent girl athletes. The intervention consisted of a six-week program that included guided meditations and exercises aimed at increasing self-compassion. The results of the study showed that the intervention was effective in reducing stress and improving the well-being in participants.

Overall, these studies suggest that self-compassion can be a valuable tool for promoting well-being, performance, and reducing negative body-related experiences in adolescent girl athletes. Intervention work in the sport and self-compassion area has placed an emphasis on mindfulness-based practices and has found significant improvement in self-compassion (Cote et

al., 2019; Carraçaa et al., 2018; Hägglund et al., 2021; Mohebi et al., 2022). By cultivating self-compassion, adolescent girl athletes may be better equipped to cope with the challenges and pressures of sport, and promote positive body image and well-being, better manage stress and burnout, and increase their enjoyment and motivation for sport. Research supporting the role of self-compassion in sport has the potential to be extended to other physical activity contexts (i.e., PE class).

### 2.3.4 Self-Compassion Interventions for Body Image in Women and Girls

There are multiple modalities used in self-compassion interventions, including psychoeducation, writing, experiential practice, meditation, etc. Self-compassion writing has helped improve self-awareness and promoting self-kindness, but these writing practices have typically been introduced in college aged women and need to extend to adolescents (Toole et al., 2021; Seekis et al., 2020; Reis et al., 2015). In college aged women, Smeets and colleagues (2014) investigated the effectiveness of a newly developed 3-week self-compassion group intervention for enhancing resilience and well-being among girls in college, which showed greater increases in mindfulness, optimism, self-efficacy, and rumination. This study did not use formal meditation exercises like past research has utilized (Neff & Germer, 2013), which provides insight and utility for informal self-compassion exercises which may be appropriate and still advantageous in supporting mindfulness.

Self-compassion and self-esteem writing tasks to reduce body image concerns among women have also been assessed (Seekis et al., 2017). Participants who completed the self-compassion and self-esteem writing tasks had significantly lower body image concerns than those in the control group. However, there was no significant difference between the self-compassion and self-esteem writing tasks in reducing body image concerns. However, Moffit and colleagues (2018) also compared a brief self-esteem and self-compassion intervention which focused on state body dissatisfaction and self-improvement motivation. Both self-esteem and self-compassion interventions were effective in reducing state body dissatisfaction and increasing self-improvement motivation compared to the control group. However, there was no significant difference between the two interventions in terms of their effectiveness. Therefore, further research is needed to explore these effects and to determine which approach may be more beneficial.

Literature that involves adolescent girls suggests that self-compassionate writing may be useful intervention for reducing weight stigma and promoting positive attitudes towards physical activity in adolescent girls (Huellemann et al., 2023; Bailey et al., 2022). Furthermore, loving-kindness meditation which involves directing kind thoughts and feelings towards oneself and others and has been found to increase positive emotions and reduce negative emotions in adolescent girls (Bluth & Eisenlohr-Moul, 2017; Perkins et al., 2022). Additionally, positive affirmations have been used to encourage adolescent girls to create positive affirmations for themselves, such as “I am worthy of love and acceptance.” This practice has been found to improve self-esteem and body image in black and African American girls (Chard et al., 2020). Another study assessed the feasibility of a brief self-compassion intervention for adolescents with type 1 diabetes and disordered eating which included mindfulness exercise, psychoeducation, and a self-compassion practice (Boggiss et al., 2020). This study was feasible and acceptable to participants, with high levels of attendance and engagement, with participants reporting improved self-compassion, self-esteem, and reduced symptoms of disordered eating immediately after the intervention and at the one-month follow-up (Boggiss et al., 2020). Greater body image and a reduction in body dissatisfaction, drive for thinness and internalization of beauty ideals was found in Balciuniene and colleagues (2021) study with Lithuanian girls. This study was not rooted in self-compassion however, it was an education and mindfulness-based physical activity intervention for the promotion of positive body image which incorporated an element of self-compassion (i.e., mindfulness). These studies highlight the importance self-compassion interventions may have on young girls, however, more experimental self-compassion research is needed in adolescent girls, as majority of self-compassion has been heavily studied in college aged women.

To our knowledge, The Mindful Self-Compassion (MSC) program by Bluth and colleagues (2017) is the only school-based program which focuses on self-compassion in adolescent girls. It is an eight-week program that includes meditation, gentle movement, and other exercises aimed at cultivating self-compassion, which has been implemented in high schools and middle schools with positive outcomes, including reductions in stress and anxiety, and improvements in self-compassion and well-being (Bluth et al., 2017). This provides evidence that a school-based self-compassion intervention targeting body image distress PE contexts may be useful for adolescent girls, however, further investigation is warranted.

### 2.3.5 Gaps and Limitations in Current Self-Compassion Interventions

There is a building body of literature on self-compassion and body image in adolescent girls, however there are still notable gaps and limitations in the research. Self-compassion interventions are limited in school settings and have yet to specifically target body image constructs in the school context. There is also a dearth of self-compassion interventions in the PE context. While some studies have shown that self-compassion interventions can improve body image in girls involved in sport, and college aged women, more research is needed to determine if these interventions are effective for adolescent girls in physical education class; which is a developmentally important school related physical activity which builds on life skills and wellness across one's life span (Barker et al., 2022). Perhaps, a self-compassion workshop geared towards helping young girls cultivate a more compassionate lens of thyself will have downstream benefits on one's overall health. Moreover, researchers have suggested that school is an ideal space to encourage young people to engage in healthy behaviours like PA/PE, and thus they should take the initiative to make sure appropriate measures are incorporated for sustained student participation (Camacho-Minano et al., 2011).

### 2.3.6 Summary

Girls are less physically active than boys, and their participation in PE drastically decreases from the transition from grade 9 to grade 10 with approximately 50% of girls remaining involved after completing provincial PE curricular requirements. This is problematic since engagement in PE has the potential to shape and guide young girls' perceptions of movement, their bodies, and coping with life's difficulties through physical activity. The PE context has been a space that girls report and recall many negative experiences around their bodies, which have been shown to contribute to body-related distress and impact physical activity participation beyond adolescence. While, pedagogic interventions have been used to improve PE engagement, they have been solely focused on cognitive and/or behaviorist principles, embodiment, critical reflection, or physical activity. The use of self-compassion, which entails treating oneself with kindness and mindfulness, may provide girls with the tools to overcome body-related distress in PE contexts.

## 2.4 Specific Research Objectives and Hypotheses

The primary goal of this study is to examine the acceptability, feasibility, and effectiveness of a group-based self-compassion focused workshop among adolescent girls engaged in physical education class.

Specifically, the present study will:

**Objective 1.** Explore the acceptability and feasibility of a multi-phase self-compassion intervention among adolescent girls engaged in PE class.

**H1.** It is expected that the workshop will be acceptable and feasible as indicated by several feasibility indicators (i.e., majority of PE teachers agree to host the workshop, majority of participants agree to participate in the workshop, group feedback session and 1-month end of intervention survey, the time-frame is appropriate to deliver intervention content, and participants engage in workshop and journal exercises), and acceptability indicators (i.e., high student scores on workshop acceptability, ethical conduct, effectiveness, limited negative side effects, material being beneficial and presented in a useful way).

**Objective 2.** Assess effectiveness of the intervention by evaluating pre to post intervention changes in self-compassion, body image coping, likelihood of re-enrollment in PE, PA behaviour, and girls' overall experiences during the workshop and manual completion.

**H2.** It is expected that after the self-compassion workshop, self-compassion scores, positive rational acceptance body image coping, likelihood of re-enrollment in PE, and PA behaviour will increase, while avoidance coping and appearance fixing decrease. Girls' overall reported experiences will support the effectiveness of the workshop.

## Chapter 3

### 3 Methodology

#### 3.1 Study Design

This study assessed the feasibility, acceptability, and effectiveness of a self-compassion intervention for adolescent girls in a PE setting. This study included a pragmatic sample of 3 PE classes consisting of one-group pre-test post-test design. The study included a 60-minute workshop session, a 75-minute group feedback session, and a month-long homework exercise component.

#### 3.2 Procedures

Study procedures were approved by Western University's Non-Medical Research Ethics Board in September 2022 (Appendix A), and The London District Catholic School Ethics Board (Appendix B). This study was conducted in-person at St. Andre Bessette Catholic Secondary School. Based on a pre-established collaboration with the PE department at St. Andre Bessette Catholic Secondary School, the sample available for the study was participants enrolled in Grade 9 and Grade 10 girls' PE classes in the Fall 2022 and Winter 2023 semesters. No screening form/questionnaire was used to determine further eligibility before continuing the study. The only inclusion criteria consisted of "Participants involved in the study are Grade 9 and Grade 10 girls enrolled in Physical Education class." Based on preliminary discussions, St. Andre Bessette identified approximately 40-90 participants who meet the eligibility criteria.

Two-weeks prior to the initial pre-study visit, a parent letter of information (Appendix C) was sent via email to all participants' parents from the PE teacher. The parents had the option to opt their child out of participating in the research component of the study. The parent LOI was to be completed 1 day prior to the pre-study visit.

##### 3.2.1 The Pre-Study Visit

The pre-study visit took place 1 week prior to the study workshop was scheduled and consisted of the study facilitator and a research assistant visiting the school during scheduled PE



class time to explain the study procedures, collect the letter of consent (Appendix D) and facilitate student completion of baseline surveys (Appendix E). Participants were given a formula to create their own unique ID (i.e., 4 digits of their phone number, the initials of their first and last name, and the initial of their street name) and this ID was noted by the participants at each survey, allowing the responses for each questionnaire to be linked. The baseline survey package took approximately 10-20 mins to complete, and included demographic questions, likelihood of re-enrollment in PE, current and planned PA engagement, Self-Compassion Scale - Youth (SCS-Y; Neff, 2021), and the Body Image Coping Strategies Inventory (BICSI; Cash, 2005) questionnaires.

### 3.2.2 Workshop Session

One week following the pre-study visit, the facilitator and research assistant returned to the school to lead a 60-minute self-compassion workshop in each PE class. The workshop protocol was developed and drawn from established manuals and programs (Germer & Neff, 2019; Bluth, 2017; Neff & Germer, 2018) and was adapted to be purpose-specific to body-related distressing situations in PE class. The workshop manual was developed into two versions (i.e., participant manual (Appendix H) and facilitator manual (Appendix I) and drawn from established manuals and programs (Germer & Neff, 2019; Bluth, 2017; Neff & Germer, 2018) for use and delivery by a facilitator for female adolescent populations, but has been re-developed to be purpose-specific to body-related distressing situations in PE class. They were voluntarily collected after the workshop. The manuals provided space under each activity for the girls to fill out as the session went on. The facilitator manual and the participant were similar in that all the same exercises were included the facilitator manual just went into more depth for the activity instructions. The first quarter included brief introductions, overview of self-compassion, its benefits, and the goal of the session. The second quarter focused on developing compassionate skills through practicing mindfulness, meditation, and cognitive reframing. This quarter started with brief affirmation work, and an introductory experiential self-compassion exercise. Participants were then guided through two other experiential exercise regarding situations in PE that may be distressing. The third quarter explored self-compassionate writing exercises and consisted of practicing expressive writing tasks to reflect and integrated changes from a compassionate framework. Participants engaged in a personal letter which had participants recall a body-related

distressing issue in PE class which had been particularly challenging for them recently. They were then guided through steps to write compassionately towards this experience to themselves. They then engaged in a group class letter, which provided a way for participants to work together to create a compassionate letter that could be displayed in their PE class and for the remainder of the workshop session. Throughout the session, the group context was capitalized by having the students arranged facing each other to help foster caregiving and development of a compassionate social environment and encouragement of supportive interactions among others the same sex, similar age and all experiencing PE class. Following the workshop session, participants completed a post-workshop survey (Appendix F) consisting of an acceptability questionnaire, assessment of likelihood of re-enrollment in PE, PA behaviour, SCS-Youth (Neff, 2021) and the BICSI (Cash, 2005) questionnaires. After completion of the post-workshop surveys, participants were provided a homework workbook and encouraged to complete self-compassion writing exercises over the following month (Appendix J).

The homework manual (Appendix J) was provided to each participant in the workshop. The homework manual was designed to include 1-3 exercises per week for the girls to complete at their own pace. Each week also included a self-compassion mantra for the week and goals for the week. Each activity was also followed by discussion questions to think about after completing the activity and notes for thoughts. There was space dedicated to each activity with activity directions. Week 1 was titled “Relating to Ourselves and Meditation Work,” this week included 2 activities (i.e., Relating to Ourselves with Self-Compassion, Loving Kindness Meditation). Week 2 was titled “Using Self-Compassion to Strengthen your Self Relationship,” this week included 2 activities (i.e., Self-Compassion Break, What aspects of Self-Compassion Do You Need Now?). Week 3 was titled “Finding Your Compassionate Voice in Physical Education Class,” this week included 2 activities (i.e., Self-Compassion Meditation During Physical Education Class, Finding Your Compassionate Voice). Week 4 was titled “Compassionate Self,” this week included 2 activities (i.e., Cultivating Joy Practice, Compassionate Self-Imagery)

### 3.2.3 The Group Feedback Session

After the workshop, participants had the option to engage in a follow up group feedback session during their next PE class time. Participants completed informed consent at the pre-study

visit for this session. There were 3 feedback session groups each consisting of between 20-28 students, which took place in the library and was held of a 75-minute session. Each feedback session group audio recorded using a portable voice recorder. The group feedback session included 6 follow-up questions from the workshop (Appendix I). The facilitator and the research assistant were the only ones with access during the study to the group feedback session manual. Each question was posed to the students and was given 5-10 minutes to spend on each discussion point. The group feedback session had 6 main questions with an additional 2-5 prompts for each main question. For example: Question #2: After taking this workshop, what do you think about self-compassion? Then there was follow up questions (i.e., Did anything change about how you see self-compassion? What does it mean to be compassionate to oneself? How may compassion help in the process of dealing with body image distress? How may compassion be difficult in the process of becoming more involved in physical education or physical activity more generally? Tell me some examples of how you practice compassion for yourself or have seen others do.

### 3.2.4 End of Intervention Session

Participants completed a 1-month end of intervention survey (Appendix G) assessing the effectiveness of the workshop; including the SCS-Y (Neff, 2021), BICSI (Cash, 2005), likelihood of re-enrollment in PE, and PA behaviour, with open ended feedback to assess feasibility metrics. At this time, homework workbooks were collected.

## 3.3 Materials

### 3.3.1 Baseline Survey

*Demographics.* At the time of the pre-study survey participants completed demographics. Participants were asked about their current age in years and their current school grade.

*Likelihood of re-enrollment in PE and Physical Activity Behaviour.* Participants were asked to circle their corresponding answers on a scale of 1-5 assessing “How likely are you to enroll in PE class again next year?” 1= very unlikely to enroll next year, 5= very likely to enroll next year. Next, participants were asked again to circle their corresponding answers on a scale of 1-5 assessing “Right now, how often do you typically engage in physical activity outside of physical

education class?” 1= never engage in PA outside of class, 5= once per day or more. These questions were purpose-made for this study.

*The Self-Compassion Youth Scale Version (SCS-Youth).* Self-compassion was assessed with the 17-item self-compassion scale youth version (SCS-Youth; Neff, 2021). Responses range from 1 (almost never) to 5 (almost always). Higher total scores indicate a more self-compassionate mindset. The SCS-Y has demonstrated excellent psychometric findings in many samples (i.e., Bluth et al., 2021; Fan et al., 2022; Karakasidou., 2021; Muris et al., 2022). Internal consistency in the current sample was  $\alpha = 0.810$  (baseline),  $\alpha = 0.879$  (post-workshop), and  $\alpha = 0.893$  (end of intervention). This scale is an adapted version of the self-compassion scale (Neff, 2003) designed for early adolescents ages 10-14. The items on the scale still represent the subscales of self-kindness, mindfulness, common humanity, self-judgment, and isolation as per the original self-compassion scale. The scale includes items such as “I try to be kind and supportive to myself when I’m having a hard time,” “I get mad at myself for not being better at some things,” “I’m kind to myself when things go wrong and I’m feeling bad.” Scores from the three negatively worded subscales were reverse scored, and then the total score was calculated taking the mean of each subscale, and then computing the average of all six subscales. Higher scores indicate higher levels of self-compassion.

*Body Image Coping Strategies Inventory.* Body image coping was assessed with the 29-item Body Image Coping Strategies scale (BICSI; Cash, 2005). Responses range from 0 (definitely not like me) to 3 (definitely like me). This scale is internally consistent, stable, and a valid assessment of three strategies (i.e., appearance fixing, avoidance, positive rational acceptance) that both women and men use to cope with body-image threats. Internal consistency in the current sample was  $\alpha = 0.763$  (baseline),  $\alpha = 0.861$  (post-workshop), and  $\alpha = 0.805$  (end of intervention). To date, this scale has mostly only been used in adult populations, and there has not been any psychometric invariance tests in youth or adolescents however, a few studies have used this scale in youth/adolescent populations (i.e., Maes et al., 2021; Avci et al., 2018; Irani et al., 2018). This scale includes items such as “I spend extra time trying to fix what I don’t like about my looks,” “I tell myself the situation will pass,” and “I react by overeating.” Scores were calculated as the mean of each subscale (appearance fixing, avoidance, positive rational acceptance). Higher total scores of appearance fixing, and avoidance indicate greater negative

endorsement of body image coping, Whereas higher total scores of positive rational acceptance indicate greater positive endorsement of body image coping strategy.

### 3.3.2 Post-Workshop Survey

*Likelihood of re-enrollment in PE and Physical Activity Behaviour.* Participants were asked to circle their corresponding answers on a scale of 1-5 assessing “How likely are you to enroll in PE class again next year?” 1= very unlikely to enroll next year, 5= very likely to enroll next year. Next, participants were asked again to circle their corresponding answer on a scale of 1-5 assessing “In the next week, how often do you plan on engaging in physical activity outside of physical education class?” 1=0 days, 5= once per day or more.

*Treatment Acceptability Questions.* Adopted from the Treatment Acceptability Questionnaire (TAQ; Hunsley 1992), this survey included 9-items, rated on a seven-point Likert scale (1 indicating poorly acceptable, 7 indicating highly acceptable) to assess workshop acceptability. Participants were to circle the answer that best describes their thoughts on the workshop. All original 6-items (i.e., acceptability, ethics, effectiveness, negative side effects, knowledgeable and trustworthy) were included in the survey. There were 3-items that were purpose-driven additionally added for the study “Do you feel the facilitator presented the material in a useful and understandable way?” “How likely would you be to refer this workshop to other girls your age?” and “Do you think this workshop would be beneficial for other girls taking physical education class?”

*The Self-Compassion Youth Scale.* Same as the baseline/pre-study survey.

*Body Image Coping Strategies Inventory.* Same as the baseline/pre-study survey.

### 3.3.3 End of Intervention Survey

*Likelihood of re-enrollment in PE and Physical Activity Behaviour.* Participants were asked to circle their corresponding answers on a scale of 1-5 assessing “How likely are you to enroll in PE class again next year?” 1= very unlikely to enroll next year, 5= very likely to enroll next year. Next, participants were asked again to circle their corresponding answer on a scale of 1-5 assessing “In the past month, how often have you engaged in physical activity outside of physical education class?” 1=0 days, 5= once per day or more.

*Workshop Effectiveness Measures.* Primary effectiveness measures included assessing change in self-compassion, body-image coping and likelihood of re-enrollment in PE and physical activity behaviour. Additionally, 9 open ended purpose-made questions were included: (1) “From the past 4-weeks check off which exercises you have used and write out approximately how many times you used them.” (2) “Thinking back to workshop activities. Check off any exercises you have used the past month if any and approximately how many times you used them.” (3) “To what extent was the workshop helpful in supporting you to deal with body-related distressing situations the past month?” (4) “Did the workshop help you learn new self-compassion tools to use during physical activity?” (5) “Do you think having more workshop sessions would help you retain the practice of self-compassion better?” (6) “Was the workshop helpful in supporting you to practice self-compassion this past month?” (7) “In the past month, did you use any of these techniques/exercises outside of physical education class ((i.e., day to day life, or in another physical activity?)” (8) “If answered yes to question #9, which techniques/exercises did you use? And in what context?” (9) How frequently did you engage in self-compassion practice this month?”

*The Self-Compassion Youth Scale.* Same as the baseline/pre-study survey.

*Body Image Coping Strategies Inventory.* Same as the baseline/pre-study survey.

### 3.3.4 Feasibility Measures

To track metrics relevant to feasibility, the facilitator kept records of student attendance at pre-study visit, workshop session, and group feedback session, alongside completion of informed consent, surveys, workshop and homework manuals.

## 3.4 Analytic Strategy

The analytic strategy for this pragmatic study focused on examining the feasibility, acceptability, and effectiveness of a self-compassion workshop in a physical education class for adolescent girls. Analyses were conducted in Jamovi. Firstly, preliminary data processing occurred, where participants who did not provide consent and/or had parents opt them out of the study were removed from the data set. The feasibility and acceptability analytic samples included all participants who provided informed consent to participate and completion of the pre-study

survey and/or post-study survey. The effectiveness analytic sample excluded cases who did not complete all 3 time-point assessment surveys using listwise deletion.

Next, to examine feasibility (i.e., proportion of participants engaged, appropriateness of time, proportion of teachers and classes available for this to run etc.), summary descriptive statistics were conducted (i.e., means, proportions, frequencies) as well as qualitative excerpts to provide additional context and depth to the quantitative data. To examine acceptability (i.e., TAQ questionnaire) summary descriptive data, as well as qualitative excerpts to provide additional context and depth to the quantitative data was used. To examine effectiveness, scores of main outcome measures (i.e., self-compassion, body image coping, likelihood of re-engaging in PE) were assessed comparing across the three assessments using repeated measures ANOVAs. Bonferroni post-hoc analyses were conducted in cases where the repeated measures ANOVA was significant to determine where significant differences lied. To assess the effectiveness in PE re-enrollment, self-compassion, and body image coping, Cohen's *d* was used to assess the change in time 1 (baseline) to time 2 (post-workshop) and change in time 1 (baseline) to time 3 (end of intervention). Furthermore, the other effectiveness questions (i.e., workshop and homework activity frequency, self-compassion tools gained, support provided by self-compassion the past month, etc.) that were purpose-made for this study were analyzed using summary descriptive data and qualitative excerpts to provide additional context and depth to the quantitative data.

Audio recordings from the workshop and group feedback sessions were transcribed verbatim, using student pseudonyms. Responses to workshop manuals and homework manuals that were submitted were also included for analysis. The workshop manual and homework open-ended responses were used to support the feasibility, acceptability, and effectiveness questions. No formal qualitative analysis of the feedback session data was conducted, rather excerpts were used to provide additional context and depth to the quantitative data.

## Chapter 4

### 4 Results

#### 4.1 Preliminary Data Processing

A total of 78 participants were eligible for the study (i.e., enrolled in St. Andre Bessette Catholic Secondary School's female physical education classes as of Fall 2022). Of this eligible sample, 5 parents opted out of their child participation in the study and 1 student did not consent to participate. At baseline, 70 participants completed assessments, post-workshop 57 participants completed assessments, and at end of intervention 53 participants completed assessments. The final analytical sample included 51 participants who completed all 3 assessments ( $M_{\text{age}} = 14.3$  years,  $SD_{\text{age}} = 0.576$ ).

#### 4.2 Objective (i): Feasibility and Acceptability

Based on the results from the feasibility metrics and qualitative excerpts, there was evidence of feasibility and acceptability of the intervention. Specifically, the workshop was conducted in 100% (3/3) of available PE classes at the school, and 100% (2/2) of teachers were willing to host the workshop. The proportion of participants that engaged in study components was generally high, with some variation; baseline survey completion was 97.2% (70/72), post-workshop survey completion was 79.2% (57/72), group feedback session participation was 66.7% (48/72), workshop session participation was 79.2% (57/72), end of intervention survey completion was 73.6% (53/72), and 69.4% (50/72) manuals and 18.1% (13/72) of homework manuals were submitted. The time frame of 60-minutes appeared to be appropriate to deliver all intervention content, whereby, all (4/4) exercises were completed by participants.

Most participants reported that a single session may not be sufficient to learn self-compassion skills as evidenced by 47.1 % (24/51) preferring an additional session. This observation was complemented by the group feedback session data (i.e., Tala: "I think the more we have it the better...I think it is a really good idea cause once we take a break from everything and sit down as a group and as a PE class we discuss things and ideas and our emotions" and Emma: "maybe twice a month would be beneficial, maybe, 14, right before you get into



highschool it would be beneficial, and maybe should be in PE context in first 2 or 3 years cause I feel like after year 1 or 2 of learning you kind of get into the habit of self-compassion workshop stuff so maybe don't need one or two more years"). However, 37.3% (19/51) felt it was not necessary to have more workshop sessions. Girls who elaborated on this response in the group feedback session felt strongly that their opinions about themselves and coping strategies were already established, though did acknowledge that some girls may benefit from the workshop if it was offered in higher frequencies: "I feel like for some people it can be beneficial but for others it may not be cause like I said some people don't like to talk about it or be reminded of it and people need to just not care what other people think, but some people don't know how to do that and they are still self-conscious about themselves" (Kyla) and "I think like everyone's views are going to change slowly or fastly and on their own time so I don't know if this workshop really sped up this process so I think it might take more than 1 day to change or a week or even more" (Megan). Another participant, Tory, described: "I just wanted to say cause like I feel it is all about your mindset like how you see yourself and I feel like by telling yourself you have to be kind to yourself doesn't really change your mindset, it takes time, so that is why I feel that the workshop, not that it wasn't great or anything, I just think that is why it won't be hitting me in a certain way because it takes time".

While a small proportion of participants, 11.8% (6/51), indicated that workshops embedded into the PE curriculum might be beneficial, most identified that learning self-compassion at a younger age would be more beneficial. For example, Tala noted: "I think that starting at a young age is good because I think it grows into your... like mindset as you grow-up cause I feel like if you start maybe later on in the years you already have all these thoughts and ideas and kind of like she said the other day how her niece was talking about it at 5, maybe the more we introduce it the earlier we introduce it the better". Similarly, Megan described: "I think they should start doing self-compassion in grade 4 cause personally for my elementary school years, this was when we started learning like the body and stuff and how you will experience changes and everything will be diff, and solutions to your thoughts and stuff". Another participant, Tory, stated: "I'm going to add on to what they said and I feel like it will be a good idea cause that's when you start learning about health and changes and starting to talk about mental health might be a good connection and then can follow on with a workshop with self-compassion and in grade 5, 6 and 7, a lot more relationships and changes are happening and I

feel like grade 9 would be good to kind of stop.” This sentiment was echoed by another participant, Megan: “I agree with sally about the MH part I think it is important cause a lot of times with self-compassion, like the anxiety and depression, I think it is important to talk about appreciating your body and like appreciating your health and mental health and express feelings and talk about them”.

Furthermore, the workshop was generally deemed acceptable, was well-received and seen as beneficial by the participants. Participants acknowledged that learning to be kind to oneself takes time and practice, but also noted that the workshop helped them gain a broader understanding of the topic and provided them with strategies to apply in their daily lives. For example, Lauren noted: “I think overall, because of you guys, teaching us self-compassion has definitely given me a broader understanding of the topic overall... earlier this year I wasn’t really taught what it was but I think since you gone over the topic and introduced it to us I think it is going to begin to become a bigger like idea and what I’m going to do for myself”. This was echoed by another participant, Kourtney “I think practicing self-compassion and being more compassionate to body may help us enjoy PE better because I feel like if you are more confident and not afraid to make mistakes then you are gonna want to go to gym class and if you were like self-conscious about making mistakes you aren’t gonna wanna go”).

Participants acknowledged that they were often kinder to their friends than to themselves, and the idea of applying this same kindness to oneself was something they found valuable. For example, Kylie noted: “I think that like methods wise, how to not blow out of proportion and reel yourself back in when you are like not feeling confident in yourself, like the imaginary friend thing like treating yourself as you would a friend, was really knowledgeable and that helps but like it’s those strategies that I’ll keep in mind and I wouldn’t of known if it wasn’t for this”. Kim corroborated: “I agree with Kylie on how to view yourself and talk as you would a friend cause I feel like we tend to be nicer to our friends than we are to us so like if you just saw yourself then it would help”. Similarly, Mira noted: “Before you didn’t really know you were doing these things to yourself, and you feel upset with some things going on but after doing the workshop I came to the realization that what I am doing is ok”).

In summary, the data conveys general feasibility and acceptability of the workshop intervention. Participants appreciated the **opportunity to discuss their emotions, share their opinions**, and **engage in group work** but suggested ways to improve, such as (i) **increasing group work** (i.e., Lauren noted “instead of having everything on paper, have groups together so that everyone is involved with it, and have everyone socialize and share their opinions, so just more discussion or have like group work”, Sarah mentioned: “I think we should be more active and doing things instead of writing everything on paper and to help focus and actually be there”), (ii) **showing explicit examples of self-compassion** in physical education class (i.e., Lauren noted: “maybe help give us a certain time we should do it but like give us like maybe some point as to when we can do it when we are struggling in a certain time or place, like you guys help us with some tips like that”, Kris mentioned: “I feel like I would love it if we were doing it during gym like in the middle if someone like made a mistake or something so help for how to comfort in the moment”), (iii) **reducing the paperwork** (i.e., True emphasized: “Similar to what Wolf said since I didn’t really expect the amount of paperwork but to be honest, I don’t think I really mind it cause it isn’t like ‘work work’, it’s to improve your wellbeing”, Emma: “Like writing the long paragraphs and not very long amount of time was like hard”), but also (iv) **saw value in why the writing component was important** (i.e., Lilly: “I think the manual was a good idea cause like some people are like not open to share what they think so let’s say it’s not a personal question but let’s say they wrote a personal answer I don’t think like they would be able to say it out loud so I think writing it down is better”), and lastly, (v) **shortening the exercises** (i.e., Lilly: “I think of how long it is haha... cause like I think for me if it was shorter you would be more engaged in it, let’s say it was 30mins, I feel like I would be like you have my attention for that 30 minutes. So not less time on each exercise but maybe less exercises and more time on each of those”). Participants also expressed a desire for similar workshops in other areas, such as math, where they struggle. Based on this feedback, it seems that the workshop would be beneficial for other girls in PE, as it provides a safe and supportive environment for discussing emotions and improving mental health (i.e., Kylie: “I think the workshop was very beneficial cause I don’t think we talk about the emotions out loud a lot or write them down or anything so we are more in touch with ourselves after that”, Violet: “yesterday’s workshop was really great because I found some things that were really comforting and it also gave me an idea that in future if I you know feel that way or you know I am in that kind of situation I know how to

react” Tala: “I feel like it made us or made me more specifically more open like when we discussed it, it made me think twice about how I used to treat myself and how I used to talk to myself and it kinda showed me that you know maybe its ok to be feeling this way and that I am not alone cause I have lots of classmates and peers that feel the same way”).

Summary descriptive data of feasibility and acceptability indicators are summarized in Table 1.

**Table 1**

*Frequency, Percent and Descriptives of Treatment Acceptability Questionnaire*

	<i>n</i>	<i>Mean</i>	<i>SD</i>	Scale Range	Frequency (%)
1. How acceptable did you find the workshop to be?	57	5.14	1.27	1	0
				2	1.8
				3	8.8
				4	26.3
				5	10.5
				6	42.1
				7	10.5
2. How ethical do you think this workshop is?	56	5.02	1.23	1	0
				2	1.8
				3	8.9
				4	26.8
				5	19.6
				6	33.9
				7	8.9
3. How effective do you think this workshop was?	56	4.66	1.56	1	3.6
				2	7.1
				3	12.5
				4	17.9
				5	23.2
				6	26.8
				7	8.9

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4. How likely do you think this workshop might have negative side effects?	56	2.48	1.24	1	17.9
				2	48.2
				3	12.5
				4	12.5
				5	7.1
				6	1.8
				7	0
5. How knowledgeable do you think the facilitator is?	54	5.46	1.02	1	0
				2	0
				3	1.9
				4	22.2
				5	14.8
				6	50.0
				7	11.1
6. How trustworthy do you think the facilitator is	56	5.36	1.14	1	0
				2	0
				3	10.7
				4	10.7
				5	19.6
				6	50.0
				7	8.9
7. Do you feel the facilitator presented the material in a useful and understandable way?	56	5.41	1.22	1	0
				2	3.6
				3	1.8
				4	19.6
				5	14.3
				6	46.4
				7	14.3
8. How likely would you be to refer this workshop to other females your age?	57	4.39	1.36	1	0
				2	12.3
				3	10.5

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				4	31.6
				5	21.1
				6	21.1
				7	3.5
9. Do you think this workshop would	57	5.42	1.27	1	0
be beneficial for other females in				2	3.5
PE?				3	5.3
				4	10.5
				5	26.3
				6	35.1
				7	19.3

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*Note:* These questions have been adapted to be purpose driven for the study. The scale ranged from 1= *strongly disagree* to 7 = *strongly agree*.

### 4.3 Objective (ii): Effectiveness

Results from the repeated measures ANOVA found no statistically significant difference across assessments in likelihood of enrolling in PE, ( $F(2,96) = .0669, p = .935$ ), self-compassion ( $F(2,74) = 1.42, p = .249$ ), positive rational acceptance coping ( $F(2,84) = 0.0544, p = .947$ ), nor appearance fixing coping, ( $F(2,78) = 1.60, p = .209$ ). There was a statistically significant difference in time for avoidance coping, ( $F(2,90) = 3.08, p = .051$ ), revealing an increase in avoidance coping from baseline ( $M = 1.24$ ) to post-workshop ( $M = 1.33; p = 0.018$ ).

Effect sizes demonstrate small decreases in self-compassion from baseline to post-workshop, ( $d = -0.275$ ) and baseline to end of intervention ( $d = -0.167$ ). Changes in likelihood of re-enrolling in PE were negligible ( $d = -0.0237; d = 0.0496$ ). There was a small increase in physical activity behaviour from baseline to post-workshop ( $d = 0.216$ ). There was a very small increase in appearance fixing coping from baseline to post-workshop ( $d = 0.161$ ), and a small decrease from baseline to end of intervention ( $d = -0.156$ ). There was a medium sized increase in avoidance coping from baseline to post-workshop ( $d = 0.449$ ) and a small size increase from baseline to end of intervention ( $d = 0.207$ ). There was a very small increase in positive rationale

acceptance coping from baseline to post-workshop ( $d= 0.1152$ ), and a negligible change from baseline to end of intervention ( $d= -0.0112$ ).

Based on open-ended responses to assess effectiveness, participants reported the workshop was effective in teaching new tools and also effective in helping participants practice these tools frequently. 32% felt this workshop was helpful or very helpful in supporting them to deal with body-related distressing PE situations, but 40% felt neutral about the support of the workshop. However, given 40% felt neutral, 74.5 % of the participants were able to learn some or all new tools to help them practice self-compassion over the past month. Only 17.6% of participants practiced self-compassion at least once a week, and 37.3% 1-2 times this month. The four most frequently used exercises were how would you treat a friend? (49%) and the grounding practice (33%) from the workshop manual, and then relating ourselves to self-compassion homework exercise (39%) and were self-compassion mantras (33%) from the homework manual. Of the workshop manual self-compassion exercises, participants used the compassionate letter to myself (13.7%) and Self-Compassion Group Letter (13.7%) the least. The How would you treat a friend? (49%) was the most used, and then Grounding practice (33.3%) and self-compassion mantras (21.61%). For the homework manual exercises. Self-compassion mantras (33%) and relating to ourselves with self-compassion (39%) were used the most. Then Loving kindness meditation (31.4%) and Self-compassion break (31.3%). Next compassionate self-imagery (25.5%) and using self-compassion to strengthen your self relationship (23.5%). Then Finding your compassionate voice (19.6%) and Cultivating joy practice (13.7%). What aspects of self-compassion do you need now? (11.7%) and self-compassion meditation during PE class (7.8%) were used the least.

While a significant proportion of participants (47.1%) felt that a follow up workshop might be beneficial in helping them retain the practice of self-compassion, and a smaller percentage (11.8%) suggested embedding workshops into the physical education curriculum, 37.3% felt that it was not necessary to have more sessions.

**Table 2***Frequency, Percent and Descriptives of Effectiveness Metrics*

	<i>n</i>	Mean	SD	Response Options	%
1. Was the workshop helpful in supporting you to deal with body-related distressing PE situations the past month?	50	2.96	1.16	1- Not helpful at all	16.0
				2 - Somewhat unhelpful	12.0
				3 - Neutral	40.0
				4 - Somewhat helpful	24.0
				5 - Very helpful	8.0
2. Did the workshop help you learn new self-compassion tools to use during physical activity?	51	1.78	0.503	1 - Did not learn any new tools	25.5
				2 - Learned some new tools	70.6
				3 - Learned all new tools	3.9
3. Do you think having more workshop sessions would help you retain the practice of self-compassion better?	51	1.90	0.944	1 - Not necessary to have more	37.3
				2 - A follow up might be beneficial	47.1
				3 - A few more might be beneficial	3.9
				4 - Workshops embedded into the PE curriculum might be beneficial	11.8
4. Was the workshop helpful in supporting you to practice self-compassion this past month?	50	1.54	0.503	1 - Yes	46
				2 - No	54



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5. In the past month, did you use any of these techniques/exercises outside of PE class?	51	1.53	0.504	1 - Yes	47.1
				2 - No	52.9
6. How frequently did you engage in self-compassion this month?	51	2.10	1.04	1 - Not at all	33.3
				2 - 1-2 times this month	37.3
				3 - Once a week	17.6
				4 - A few times a week	9.8
				5 - Every day	2.0

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### **Participant Sample Excerpts from Workshop Manuals**

There were (n=50) workshop manuals handed in post-workshop, and the reflections showed that the majority of girls were kinder to others than themselves, and found it easier to show compassion to their friends than to themselves (i.e., “When my friend came to me talking badly about her body, I told her that she is beautiful just the way she is and her body is the thing that keeps her going and she should be proud of it” versus “When I feel about my body, I always try to remember that I shouldn’t be looking at others bodies or comparing them to mine but being happy and working hard to impress myself and not others. However, this isn’t exactly how I treat myself. Most of the time I feel like I let myself down by my body image and yes, I try to leave negative thoughts aside but I cant. One-time last year in grade 8 I went to go try out for basketball team and once I walked in I noticed girls with different bodies than me and I felt uncomfortable and I started doubting myself and I left the tryouts”).

Writing a compassionate letter to themselves was challenging for some (i.e., “I don’t think I have ever gone down that road but something that I should prob say is that I’m the best self that I can be” and “This is a little hard to do cause this mindset doesn’t come around often”), while others were able to reframe difficult experiences in a compassionate way (i.e., “When doing certain activities in gym class, I can sometimes get to my own head when I don’t complete said activity as well as the more athletic girls in my class, it can be extremely degrading at times it makes me feel like there is no reason for me to participate if I’m not good at it. So, my

compassionate self would say just because I'm not the best at some things, doesn't mean I'm bad at everything pride myself in things I'm good at. I have strengths and weaknesses just like any other human being. I can always try to get better at the things I struggle with, with the help of my talented classmates. May I accept myself as I am.”).

Reframing helped some girls to accept and appreciate themselves, and to recognize that others also struggle with similar issues (i.e., “An issue that has been challenging for me recently is the hyperpigmentation in certain areas of my body. The places that it bothers me the most are my face, elbows and knees, it doesn't necessarily pain me but I don't really like having to wear a long sleeve or a ¾ sleeve under my gym uniform because of how I feel. I'd feel better after PE if I could just wear a short sleeve and shorts as I would be less sweaty. I have to remind myself that there are other brown skinned people who struggle with this issue just like me.

Hyperpigmentation is known and its somewhat out of my control. It's not my problem. May I accept myself as I am. May I feel more confident in my skin. My body is strong and capable a little discolouring isn't the end of the world. May I learn to love myself more and treat myself with more kindness and compassion”, “I don't exercise enough. I will be made fun of if I don't exercise (because of my body and stuff). My inner critic, a cold, emotionless way to keep me safe from other's people's rude comments. You are doing a good job protecting me but try to be a little soft (I know its hard). Everyone is human, no one is perfect, and neither are you but your personality is good and you should keep making it softer. Things will be alright. Keep working on it, you will get better. I could identify my voice of inner criticism. Yes, it was trying to help me. Made sense to thank it for its efforts.”)

### **Participant Sample Excerpts from Homework Manuals**

There were (n=13) homework manuals handed in at the end of intervention survey visit. These exercises appeared to help the girls become more self-aware of their insecurities and struggles with body image, and to reframe their thoughts towards self-compassion. The homework manuals were particularly effective in facilitating vulnerability and promoting self-kindness. The girls were able to identify their inner critic and recognize that it was trying to protect them, but also learned to soften their self-talk and accept themselves for who they are (i.e., “I'm uncomfortable changing in front of my classmates, due to body image and small imperfections I notice about myself. I'm not usually so focused on my weight or how my body is

perceived, but for some reason in front of others I tend to become more self-conscious. I'm feeling inadequate about myself for struggling with losing body fat. No, I understand everyone is at a different skill level and not because how they're body looks. I'd say if you put in the time eventually, you'll be able to do whatever activity you can't do. (i.e., 10 push ups, every day start with 2 and add up). I understand others could feel similar to me and its normal to feel this way, they could feel worse even so I'm not alone. Depends on how I feel, someday I'll be extremely judgemental if I was already emotional, ither times ill just be extremely kind to my body. I'm sorry that some days you feel this way, a way where you feel you could look better and you feel the need to judge. Your body is healthy and beautiful, it doesn't need to fit into societies standards. This practice was good, it's nice to write down your thoughts and express them on paper than just have them scattered in your head").

Overall, the exercises appear to have had a positive impact on the girls' self-esteem and body image (i.e., "I feel pretty insecure about the hyperpigmentation. I decided not to buy and wear the uniform shorts just because I knew my knees are darker than the rest of my body. I started wearing a ¾ sleeve or long sleeve a couple weeks into the start of the year after I became more self-aware of my dark elbows. I do however wish I could wear normal uniform sometimes because of how sweaty I become after class, if anything I do think I kind of make a bigger deal than it is sometimes. A lot of the girls in class are not browned skin so they don't have this issue. The brown skinned girls that are in the class also don't have it as bad as me (I think). My family members (all brown of course) also don't have it or it's not as bad making me think its definitely something I'm doing, not genetics. There are other people who are facing this insecurity too. I am not alone, it's okay to feel like this right now. I try to limit my interactions or conversations with people because I'm scared, they're judging the hyperpigmentation on my face, I wish I could cover during this class. I'm sorry you're feeling this way right now. I know you're trying to let go and accept yourself more and I think you're doing a great job at it. This practice was good for me, it made me more self-aware of my struggles and feeling. The self-kindness did make me feel a little comforted and I think I could savour this feeling of caring for myself (even though it doesn't completely change my thoughts, I feel soothed at this moment)").

**Table 3***Effectiveness Indicator Scores Across Assessments*

		Mean	SD	SE	Cohens d (Baseline to Post- Workshop)	Cohens d (Baseline to End of intervention)
Self-compassion	Baseline	2.80	0.463	0.0669	-0.275	-0.167
	Post-workshop	2.74	0.541	0.0797		
	End of intervention	2.75	0.602	0.0897		
Likelihood of re-enrolling in PE	Baseline	2.98	1.33	0.187	-0.0237	0.0496
	Post-workshop	2.96	1.51	0.214		
	End of intervention	3.02	1.42	0.201		
Physical Activity Behaviour	Baseline	2.88	1.21	0.170	0.216	
	Post-workshop	3.12	1.19	0.167		
	End of intervention	2.86	1.11	0.156		
Avoidance Coping	Baseline	1.24	0.461	0.0645	0.449	0.207
	Post-workshop	1.33	0.522	0.0762		
	End of intervention	1.30	0.503	0.0711		
Appearance Fixing Coping	Baseline	1.74	0.666	0.0932	0.161	-0.156
	Post-workshop	1.77	0.755	0.110		
	End of intervention	1.66	0.746	0.113		
Positive Rational	Baseline	1.53	0.409	0.0572	0.1152	-0.0112

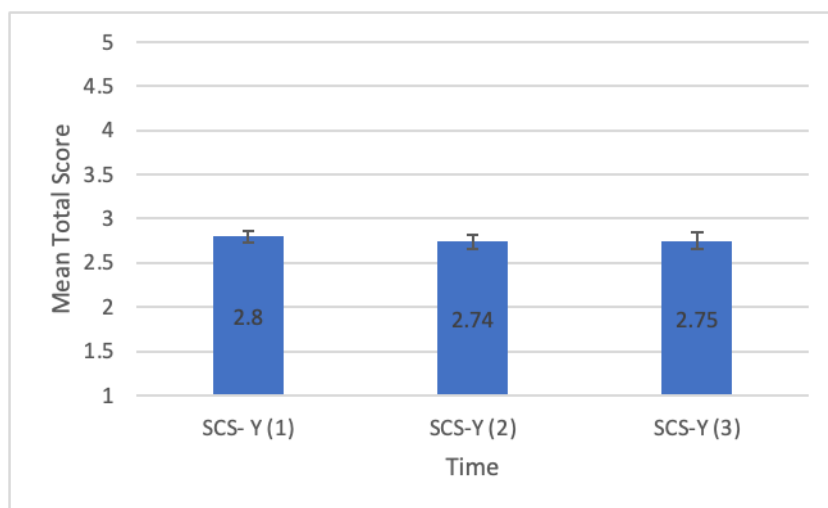
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Acceptance Coping	Post-workshop	1.58	0.446	0.0637
	End of intervention	1.52	0.433	0.0645

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### Graph 1

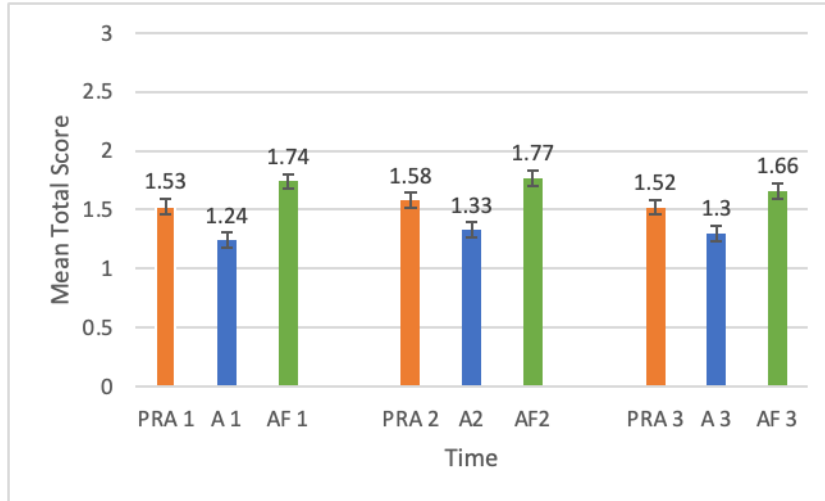
*Mean Self-Compassion Scores Across Assessments*



Note: The mean score is displayed on the y-axis and the standard error is displayed on the error bars.

## Graph 2

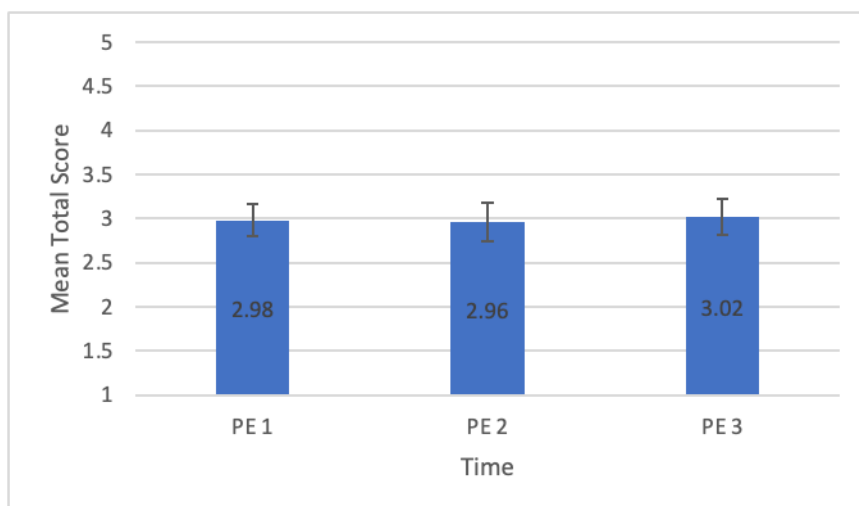
*Mean Body Image Coping Scores Across Assessments*



Note: The mean score of PRA (positive rational acceptance coping), A (avoidance coping), and AF (appearance fixing coping) is displayed on the y-axis and the standard error is displayed on the error bars.

## Graph 3

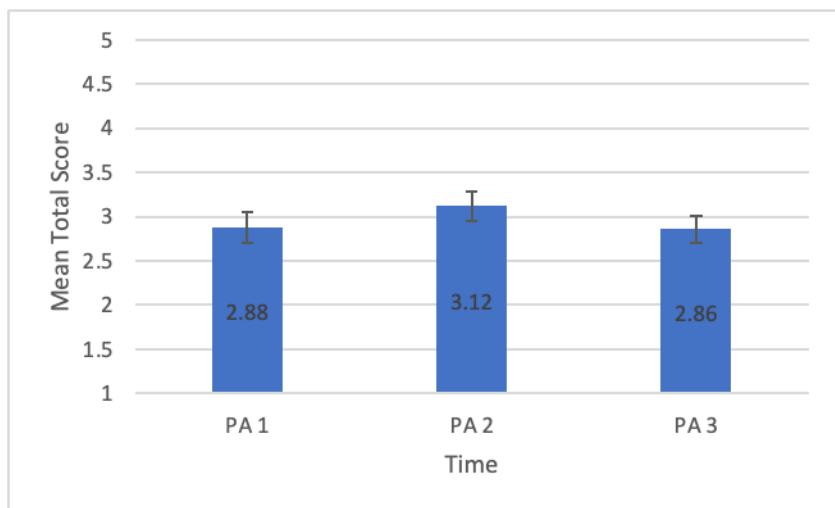
*Mean Likelihood of Re-Enrollment in PE Across Assessments*



Note: The mean score is displayed on the y-axis and the standard error is displayed on the error bars.

#### Graph 4

*Mean Scores of Physical Activity Behaviour Across Assessments*



Note: The mean score is displayed on the y-axis and the standard error is displayed on the error bars.

## Chapter 5

### 5 Discussion

The aim of this thesis was to explore the feasibility, acceptability, and effectiveness of a group-based self-compassion intervention in PE class for adolescent girls. As hypothesized, the intervention showed overall feasibility, whereby, all available classes and teachers agreed to host the workshop, most eligible participants agreed to participate and completed a substantial proportion of intervention and assessment components. The intervention demonstrated acceptability, as indicated by high scores on workshop acceptability, ethical conduct, effectiveness, limited negative side effects, and beneficial material that was presented in a useful way. There were no significant improvements in main effectiveness outcomes as assessed by self-report instruments, such as self-compassion, likelihood of re-enrollment in PE, PA behaviour nor body image coping scores, though this is not surprising for a pragmatic single-arm pilot trial. Notably, there was support for perceived improvements in self-compassion, and body image coping over the month as indicated by participants during group feedback session discussions. Overall, the findings from this pilot study suggest that incorporating self-compassion in a school PE setting is feasible and acceptable and may be beneficial for helping girls deal with body-related distress. These findings are important because girls are experiencing body-related distress at a higher rate than ever before (Moffitt et al., 2018; McVey et al., 2003b) and this may contribute to PE dropout and extend to PA dropout more broadly. Dropout and low rates of engagement are worrisome because PE and PA participation contribute to many mental, physical, and social benefits across the lifespan. Therefore, it is imperative that there be a focus on interventions that target body-related distress in adolescent girls. This research will contribute and extend the growing work in PE contexts for targeting health and PA promotion strategies.

#### 5.1 Feasibility

The current study supported our hypothesis whereby, the self-compassion intervention was feasible as indicated by school, PE teachers, and participant uptake. Specifically, all available classes and teachers were able to host the workshop in the first term, the 60-minute time frame was found to be appropriate to deliver all the content, and all exercises were completed. However, the proportion of participants engaged in the study varied throughout the different



stages, with some preferring an additional session and indicating that a single session may not be sufficient to learn self-compassion skills. Additionally, some girls suggested that learning self-compassion skills at a younger age would be more beneficial, with some indicating that embedding workshops into the PE curriculum might be helpful. While some participants felt that the workshop was not necessary, it is important to note that the group feedback session data suggests that workshop frequency would need to increase for participants to enhance comprehension and practice opportunities. To our knowledge, there has been no research examining the feasibility of single session school-based interventions and thus need to be further investigated to contribute to our understanding of feasibility in school-based contexts, especially considering school is an ideal space to encourage young people to engage in healthy behaviours like PA/PE (Camacho-Minano et al., 2011).

The majority of participants felt more workshops were needed to learn self-compassion skills. Participants voiced in the group feedback session that they started to notice body image issues and heightened pressures to achieve idealized thin-ideals portrayed on social media in grades 4, 5, and 6, which is consistent with previous research reporting that girls with greater internalization of appearance ideals had a greater desire to be thinner and lower body esteem (Clark & Tiggemann, 2008). Participants also felt that they would have benefitted from self-compassion during the start of puberty as it would have helped them come to a better understanding of what they and others were going through. Specifically, many of the girls voiced that when they start learning about and mental health and bodily changes in school, self-compassion would be an ideal topic to support with the learning process. Bluth and colleagues (2017) have supported the notion that there may be an ideal time to learn self-compassion in adolescence. Specifically, older adolescent girls appear to have the lowest levels of self-compassion, versus younger adolescent girls, and therefore suggest that intervention starts before girls reach older adolescence (Bluth et al., 2017; Bluth et al., 2015). Furthermore, Bluth and colleagues (2017) discuss the potential barriers to receiving the benefits of self-compassion in older adolescent girls, whereby, they may have a harder time believing in the benefits of self-compassion, their deservingness of self-kindness and thus have heightened reluctant to practice and attain the benefits of self-compassion. Therefore, it is worth exploring further how self-compassion can be integrated in elementary level schooling for girls in preventative body image programming.

The group feedback session data highlighted that most girls were hearing about self-compassion for the first time, and for some, the intervention was the first time talking about body-related distress, and/or experiences in PE class in a group setting. Recent research has suggested that girls may be reluctant to talk about their body for fear of being judged or criticized (Tiggemann & Slater, 2014), or being teased or bullied about their struggles (Shroff & Thompson, 2006). These factors may in part explain why some of the girls did not want to discuss their own experiences and furthermore, may not have wanted to explore their own body image distress. Having positive role models can help normalize discussions about body image and encourage girls to speak up about their own struggles (Vartanian & Shaprow, 2008), therefore future research integrating self-compassion as a strategy to alleviate body image distress may want to explore if girls who do feel comfortable exploring self-compassion and their body image distressing experiences are influenced by positive role models.

In evaluating intervention effectiveness, it is important to note that less than 25% of girls completed the homework self-compassion exercises over the month-long period. This could be due to girls feeling overwhelmed with other responsibilities and not having enough time to complete additional homework tasks outside of their academic schoolwork. Moreover, the girls may have also not felt they needed to complete the homework for an optional research intervention or may hold negative attitudes towards homework in general. It is also possible that the lack of engagement with homework reflects a disinterest in the topic of self-compassion. Future research is needed to determine the utility and uptake of home practice materials assigned post-intervention.

This study is important because feasibility of school-based interventions is understudied and moreover, fully undiscovered in assessing feasibility for PE body image interventions. The strong level of participant retention in the present study shows promise for future self-compassion workshop integration in a PE setting but warrants further investigation. Previous PE body image interventions have typically employed multiple workshop sessions over 4–12-week periods (Cox et al., 2017; Halliwell et al., 2018; Schubring et al., 2021; Bonavolonta et al., 2021), however, none have assessed feasibility of the interventions, and none have been conducted in Canadian schools. As feasibility studies in the PE body image intervention area have not been conducted, and feasibility for single session school-based interventions have not

been addressed, it is worth exploring further to provide a better basis for comparison on feasibility metrics. Since the current study generally supported our feasibility hypothesis for the delivery and uptake of a self-compassion group-based workshop, 1 session psycho-education workshops may provide an easy alternative to a health education lesson in PE.

Another important area for consideration in future work is the role of the PE teacher on study adherence. In this study, one PE teacher showed an immense amount of support towards this workshop, which was reflected in the number of manuals returned for submission, as well as the number of girls that attended the workshop and group feedback sessions. Therefore, it is likely that girls who have a PE teacher that is supportive of their engagement in self-compassion education, are more likely to uptake, and potentially benefit from, intervention components. Although no direct research has assessed the influence of teachers in PE interventions focused on body image, there is evidence that PE teachers have a significant impact on the motivational and emotional well-being of adolescents, as well as their ability to develop healthy, active lifestyles (Trigueros et al., 2019).

Overall, the results of this study suggest that the intervention is feasible, with potential for further improvement in delivery and frequency. With the gathered results, it is evident that self-compassion should not be a one-time only psychoeducation session and should therefore rather be an integrative component in young girls' lives starting in their early elementary days.

## 5.2 Acceptability

Self-compassion interventions have been proposed as a potentially more palatable approach to tackle body image distress, compared to interventions that emphasize confronting deeply ingrained thin ideals (Toole et al., 2021). However, in the adolescent population, much is left unknown for how self-compassion interventions can be integrated into school settings. This study advances the literature, demonstrating evidence for the acceptability of a self-compassion intervention in a PE setting. Pertaining to the treatment acceptability questionnaire (Hunsley, 1992) which was adapted for use of this study, 52% of participants said the workshop was 'acceptable' or 'very acceptable', and 59% said the presentation and material were 'very understandable'. These responses are also important because self-compassion was brought to these girls without them having prior knowledge. Although no specific study has yet to look at

the amount of time it takes for participants to grasp the concept of self-compassion, it could be speculated that just like other coping skills, uptake can vary depending on a variety of factors. For example, prior knowledge and experience with mindfulness, engagement with self-care practices, and individual learning styles could contribute to the degree of uptake and acceptability of self-compassion content. In a study examining how adolescent girls uptake and apply self-compassionate strategies to a weight stigmatizing experience in physical activity, Bailey and colleagues (2022) suggest that girls who do not perceive themselves to fit culturally endorsed ideals of thinness may have greater fear practicing compassion towards themselves. In fact, instead of participants acknowledging their stigmatizing experience with compassion and acceptance, they wrote about solutions on how to change how they were feeling (Bailey et al., 2022). While some may grasp the concept quickly, some others may require more time and repetition to fully understand and internalize self-compassion practices. Self-compassion is ongoing and can take time and effort to cultivate at any age (Neff, 2011). Brief self-compassion interventions have shown promise for reducing negative emotions and increasing positive emotions (Smeets et al., 2014) and increasing state self-compassion (Huellemann et al., 2023), and need to continue to be assessed in this age group and gender group.

Importantly, workshop acceptability was supported through data provided in the group feedback session and submitted manuals. The analysis of this content revealed that girls were able to grasp the concept of self-compassion and introduce cognitive reframing for body-related distressing experiences. Participants demonstrated these skills through their ability to answer the group feedback session questions (e.g., what do you think about self-compassion, how much more knowledge or understanding have you gained, what does it mean to be compassionate to oneself?) and assert themselves in previous body related distressing experiences and then think compassionately through the exercises. The idea of treating oneself as a friend and being kinder to oneself was well-received and seen as a useful strategy to practice self-compassion.

Another salient finding was girls high ratings towards the extent to which the workshop would be beneficial for other girls in PE. Aligned by previous research conducted by Klinge and Vliet (2017), girls felt that self-compassion would help them maintain a positive outlook, engage in positive movement, connect positively with others, work on self-improvement, and accept oneself. Notably, girls started to go beyond the focus of self-compassion specific to body-related

distress and started to identify other areas in their lives that self-compassion could contribute in a positive manner. For example, some of the girls brought up that they would like to see self-compassion taught in other school subjects (i.e., math). Interestingly, the application of self-compassion being readily applied in other contexts has not yet been addressed fully (Neff, 2022). Zuroff and colleagues (2021) assessed trait levels of self-compassion in eight domains and found that self-compassion levels were not consistent across domains. This warrants further investigation to understand the utility of self-compassion application across different domains in adolescence. Klingle and Van Vilet (2017) found that adolescents used self-compassion to help cope with academic difficulties, engage in pleasurable activities, connect positively with others, and work on self-improvement. These findings from Klingle and Van Vilet (2017) supports the findings the present study found whereby; the girls started to make connections to where self-compassion could be adaptive in other areas of their life. Other research has found that students with higher levels of self-compassion exhibited lower classroom participation avoidance and higher tendency to ask questions, seek help and speak with their instructors outside the classroom (Long & Neff, 2018). Therefore, self-compassion applied in other educational contexts may be helpful in supporting academic performance and learning outcomes.

Additionally, it is also important to note that there was a small percentage of girls that felt that this workshop would not be beneficial to other girls their age. When the girls elaborated on their responses, it was mostly because they felt that girls at this high school age have encountered specific body image experiences throughout their lifetime, and these occurrences have become deeply embedded in society, resulting in it becoming a “norm” to feel negative towards aspects of their body. This notion has been supported by prior research (e.g., Bailey et al., 2022), whereby girls found it hard to write compassionately to themselves when cultural discourses about the body have been deeply embedded and shaped by Western society. The girls in the present study felt that they already have their coping skills, and it is difficult to have conversations about their body when they are not used to it and additionally, it was bringing up other emotions that they did not want to deal with. This is an important notion to be further investigated in adolescent girls, given the utility that self-compassion can have on one’s overall emotional wellbeing (Bluth & Blanton, 2015). Perhaps, people are afraid to be the first ones to be self-compassionate and in order for self-compassion to be acceptable, we need to change the perspective of western culture (Campion & Glover, 2017). Although participants clearly placed

importance on learning self-compassion at a younger age, they all agreed upon feeling a sense of being connected to others in the class through one's struggles, which is aligned with Neff's (2003a) conceptualization of self-compassion including common humanity and the awareness that all humans experience suffering. Self-compassion is not a fixed personality trait, rather it is a skill that can be learned and practiced (Neff, 2022), and this notion should be included in future psychoeducation interventions.

For future self-compassion workshops in a PE setting, the girls provided feedback suggesting an increase in group work, showing explicit examples of self-compassion, reducing the paperwork, and either shortening the exercises or having less exercises to focus on and more time to complete them during the workshop. These suggestions are important because they were provided and agreed upon by most of the participants. Based on their feedback, it seems having the workshop in a safe and supportive environment for discussing emotions and improving mental health is important for girls to open up. In summary, the data conveys general feasibility and acceptability of the workshop intervention. Participants provided various suggestions on when the workshop should be implemented, with some suggesting that it should occur once or twice a month and others recommending that it should happen in specific grades or stages of life. However, it is clear that many participants believe that learning about self-compassion early on can have long-lasting benefits and shape one's mindset as they grow up. The suggestions to implement the workshop at earlier developmental stages, and with greater frequency, suggest that it may be useful to reinforce the importance of self-compassion and provide individuals with the tools to practice it throughout key stages of childhood and adolescent development.

### 5.3 Effectiveness

Although recent research has pointed to the benefits of self-compassion in youth, relatively little is known about self-compassion interventions in school settings, and more specifically physical education class where self-compassion is applied to body-related distress. This study was the first of its kind to assess the effectiveness of a brief 4 exercise self-compassion workshop, group feedback session, and a one-month end of intervention survey that also included self-compassion homework exercises. Interestingly, there were no significant differences from baseline to post-workshop, and baseline to one-month end of intervention on self-compassion, likelihood of re-enrollment in PE, and body image coping. This was surprising

as the current literature does show promise for the utility of a brief self-compassion induction for adolescent girls (Huellemann et al., 2023). Due to the pragmatic pilot nature of this study, it is possible the study was not adequately powered to detect significant effects.

On average, self-compassion scores in adolescent girls typically tends to be around 2.9 on the 1-5 likert scale (Neff, 2020), and the present study self-compassion scores was aligned, with an average of 2.75-2.8. Unexpectedly, the present study saw some small sized decreases in self-compassion across baseline to post workshop ( $d = -0.275$ ) and baseline to end of intervention ( $d = -0.167$ ). While unexpected, it is possible that learning self-compassion makes girls more cognizant and aware of their levels of self-compassion when completing self-assessments, and therefore they may report lower scores after learning about self-compassion, than prior to knowing what the construct entailed. This notion was partly supported by one participant (Tala), who recognized that she started to pay more attention to the surveys after the workshop. Similarly, another participant (Mira) explained that after doing the survey, she was more aware of what she was doing in real life and how to help herself in times of need. She also brought up that it was obvious she does not treat herself well so she should be learning and treating herself better. Additionally, it has been suggested that adolescents might find it easier to connect with negatively worded statements compared to positively worded ones and as a result, they tend to provide more definitive responses to negatively worded statements (Bluth and Blanton 2014a). Despite the lack of effectiveness data in the present study, there is merit in further assessments of the utility of self-compassion interventions given current literature has shown promise for self-compassion in improving body image outcomes among female college aged participants over 1 session (Toole et al., 2021), 3 sessions (Smeets et al., 2014) and 4 sessions (Held et al., 2018).

Self-compassion has been identified as a predictor of well-being in adolescents, and thus low self-compassion has been shown to be predictive of elevated negative mental health symptoms (Marsh et al., 2018). Self-compassion can take time to cultivate, and varies within individuals over time, and in different contexts, therefore, it is important for future research to continue assessing the utility of brief self-compassion workshops for adolescent girls across the PE enrollment time span. The present study was assessing self-compassion as a trait-level construct that “describes how you act towards yourself in difficult times” (Neff et al., 2021) versus assessing more state-level experiences of self-compassion, such as the capacity to apply self-

compassion after recalling a body image distressing situation. Therefore, the self-compassion measurement tool used may be missing the individual-level variability of self-compassion. As the self-compassion scale used in this study assesses trait level self-compassion, in an extension of this pilot study, utilizing the state self-compassion scale (Neff et al., 2021) may be useful in determining whether a brief self-compassion workshop can increase one's attitude towards their physical activity and self-compassion during the moment of recalling body image distress (Semenchuk et al., 2018).

Another main component of this study was to use likelihood of re-enrollment in PE as a measure of whether the self-compassion workshop could contribute to girls re-enrolling in PE class the following year. There was no significant change in these scores post workshop, as measured using a 1-item question that assessed whether participants were going to re-engage in physical education class next year. Since we only assessed intent to re-enroll at the time of the study end, it is unknown who will re-enroll next year, Future research could investigate assessing more PE enrollment or behavior and attitude metrics as well as having objective participation data which might be useful in future research.

PA behaviour was also measured using a 1-item question. As previously mentioned in the literature of review, physical activity and self-compassion are positively correlated, meaning that higher levels of physical activity have been associated with higher levels of self-compassion (Wong et al., 2020), and growing evidence indicates self-compassion is likely a driving source for physical activity (Semenchuk et al., 2018; Hallion et al., 2019), at least as demonstrated in adult women. The present study saw a small increase in mean physical activity behaviour score from baseline ( $M=2.88$ ,  $SD=1.21$ ) to post-workshop ( $M=3.12$ ,  $SD=1.19$ ), and small sized positive effect size ( $d=0.216$ ). Seeing the increase in average physical activity score from baseline to post-workshop is important because this may show promise for future intervention work to examine the impact self-compassion may have on one's attitude towards physical activity once cultivating a more mindful and kinder mindset towards themselves during the workshop or continued self-compassion practice (Neff, 2011). There are many factors to why girls disengage from PE (i.e., psychological barriers, social and environmental barriers, choice, and consultation etc..) which may contribute determining the future of girls' enrollment in PE (Mitchell et al., 2015). Perception of competence, lack of skill, fitness body ideals, running in



front of others, being observed by others in a PA context and fitness testing were mentioned as barriers to participation in this study and have been supported in previous research (Mitchell et al., 2015; Walseth et al., 2017). The body continuously tends to play an important part in girls' identity constructions in PE class. It is crucial for researchers to continue integrating self-compassion into PE intervention work and PA programming more broadly.

As expected in a single-arm pilot study, evidence of preliminary effectiveness was limited. It is possible this is due to sample not being adequately powered, or the lack of a control group. Despite this, the qualitative data supports proof of positive regard towards the effectiveness of the study. The majority of the participants reported learning some or all new tools to help them practice self-compassion within the month and in future. A smaller percentage of these participants practiced self-compassion at least once a week and just less than half practiced it 1-2 times this month. Considering the girls did not know what self-compassion was before starting this workshop, it is important to bring attention to the fact that the girls were applying the self-compassion techniques learned through the workshop and homework manuals. This qualitative support is important to recognize as it provides further context to the non-significant quantitative findings which may suggest that self-compassion uptake and effectiveness may not have been adequately captured by the chosen instruments and outcome measures used. The manuals showed that majority of girls were kinder to others than themselves and found it easier to show compassion to their friends than themselves. This supports previous research (Bluth & Blanton, 2015) whereby, girls typically tend to be less compassionate towards themselves, more self-judging, and being able to maintain a balanced perspective in the midst of challenging circumstances. Hence, it is important for future research to continue to find strategies and interventions that target one's compassionate self. Additionally, future research should address different instruments and outcome measures (i.e., state self-compassion).

To date, there is an increasing pool of evidence supporting the effectiveness of self-compassionate writing on women's body image (i.e., Moffit et al., 2018; Seekis et al., 2017), however in adolescent girls it is an understudied context. Recently though, Huellemann et al., (2023), found that writing tasks emphasizing kind regard for the self, mindful awareness, attention to emotions, and connecting body-related distress to others was associated with higher levels of state self-compassion and lower external pressure to engage in physical activity in

adolescent girls compared to a neutral writing task. The current study supports this notion whereby, although girls found it difficult to write compassionately to themselves, the girls who completed the writing tasks which was centered around body-related distress were able to recall and reframe compassionately after the workshop. Additionally, as discussed in the group feedback session, girls felt calmer and more compassionate towards these experiences and feelings towards their bodies after completing the writing exercises. The reframing helped some girls to accept and appreciate themselves, and to recognize that others also struggle with similar issues. Some girls in the present study were unable to recall specific body-related distressing experiences, so they called upon an imaginary experience or an experience that they know a friend has gone through. Hence self-compassion intervention work is still in its early stages with adolescent girl development, it may be beneficial to look further into this group feedback session finding, where girls either have not experienced a body-related distressing experience or they potentially just chose not to acknowledge one.

As previously mentioned, there were less homework manuals completed as per initial hypothesis. This is important when considering the effectiveness of the intervention because self-compassion can be strengthened when practiced more often (Neff, 2022). The homework manuals that were completed helped the girls become even more self-aware about their insecurities and struggles with body distressing experiences and helped them reframe their thoughts towards self-compassion. They were particularly effective in facilitating vulnerability and promoting self-kindness. Perhaps, future homework practices could focus on the key exercises that were most frequented by the girls. As expected, the exercises as adapted from Bluth & Neff (2017) “The Self-Compassion Workbook for Teens”, treating yourself as you would treat a friend, grounding practice, self-compassion mantras and relating ourselves to self-compassion were the most used. However, interestingly the girls stayed away from frequenting the writing self-compassion practices. It is important for future research to further examine which self-compassionate exercises adolescent girls would frequent most often and which exercises would be most beneficial to adolescent girls. Current brief self-compassion interventions for adolescent girls have been centered around compassionate writing (Bailey et al., 2022; Huellemann et al., 2023). Therefore, because this present study gave the girls options of which exercises, they could complete, and they frequented less writing task exercises, this warrants further investigation.

Despite the general positive regarding towards the workshop, a surprising finding was that 27 girls said the workshop was not helpful in helping them practice self-compassion the past month, while 23 said it was helpful towards them practicing self-compassion over the past month. Furthermore, 24 girls used these techniques outside of PE class whereas 27 did not use any of these techniques outside of PE class. But then only 17 said they did not practice self-compassion at all this past month. Previous self-compassion interventions on body image in adolescent youth girls have shown positive effects and address common body image issues faced by participants (Bluth & Eisenlohr-Moul, 2017; Bailey et al., 2022; Huellemann et al., 2023), however, none of which have specifically investigated a brief self-compassion intervention in a PE setting. It is important for these specific findings to be further explored into whether self-compassion practices are accepted and can be maintained by adolescent girls amongst all other responsibilities on top of the additional pressures that beginning high school can have. Girls in a previous self-compassion program found the concept of self-compassion and mindfulness to be applicable in their daily lives, however, indicated that informal practices were more useful at home versus formal in their every day (Bluth et al., 2015). Perhaps, future work should look into whether additional practices of self-compassion post workshop moderated a change in self-compassion, PE likelihood of re-enrollment, and body image coping via a control group. These scores could be evaluated based on participants who completed the additional homework exercises and practiced self-compassion over the past month versus those who did not. Bluth and colleagues (2015), who examined the effects of a 6-week self-compassion and mindfulness program found that at-home practice was not correlated with increases in self-compassion or mindfulness, so attending the weekly class appeared to be sufficient as these changes were not evident in the waitlist control. However, since there is a lack of research on home practice in self-compassion-based interventions among adolescents, further research is necessary.

In contrast to our hypothesis, there were no significant differences in body image coping from baseline to post-workshop or baseline to end of intervention. Some of the reasons that may explain this are it has yet to be validated in youth or adolescents, however, a few studies have used this scale in youth/adolescent populations (i.e., Maes et al., 2021; Avci et al., 2018; Irani et al., 2018). The scores in the present study from each time point are endorsing more dysfunctional body image coping compared to adult women in Cash's (2005) validation paper. Previous research has supported that this age group of girls show more negative trends in body image due

to the fact that adolescence is already a developmental period in which body focus is high and girls tend to engage in social comparison as a coping mechanism (Avci & Akilman, 2018; Clark & Tiggemann, 2008), therefore it is expected. However, since body image coping was a main indicator of effectiveness for this pilot study, seeing avoidance coping be the only significant ( $p = .051$ ) and medium sized difference in the intervention, it could possibly suggest that the present intervention increased dysfunctional avoidance, which revealed an increase in avoidance coping from baseline ( $M = 1.24$ ) to post-workshop ( $M = 1.33$ ;  $p = 0.018$ ). Avoidant coping as described by Cash and colleagues (2005) is when “one attempts to deal actively with or avoid distress.” Therefore, regarding body image distress this is an attempt to escape the stressful body image situation or experience. This workshop was centered around participants recalling a body image distressing experience from PE. Perhaps, adolescent girls might exhibit resistance towards being kind to themselves and instead opt for criticism as a means to motivate change, especially if they view themselves as weak or lazy (Bailey et al., 2022). This recall could have elicited additional negative emotions towards the distress which in turn had participants wanting to escape the stressful experience and use avoidant coping as a means to alleviate the distress. Because of this, future research needs to investigate the associations between different body image coping practices and specific body image distressing experiences to associate causal effect in this significant change. Additionally, in future this is an area that could be qualitatively discussed with future participants in the group feedback sessions.

Overall, the present study demonstrated feasibility, and acceptability evidence for the intervention. As expected in a single-arm pilot study, evidence of preliminary effectiveness was limited, with non-significant pre-post differences and very small effect sizes. The knowledge gained from this pilot study may enhance capacity for delivery of scalable curriculum-informed physical education promotion strategies which may be broadly transferrable to physical activity programs.

## 5.4 Strengths

This study is the first pilot study exploring a relatively new approach to addressing body related distressing situations in physical education class. This study used both quantitative and qualitative data collection methods which provides a more comprehensive understanding of the feasibility, acceptability, and effectiveness of the intervention. Furthermore, it additionally

allowed for a more in-depth exploration and nuanced understanding of the experiences and perspectives of the participants in PE class and using self-compassion exercises for the first time. Moreover, these study methods can help identify potential challenges and strengths of the program and provided insights into participant's experiences which is crucial to furthering work in this area. Another strength of this study was the collaborative approach it took between the LDCSB, PE teachers, and researchers which ensured that the intervention was culturally appropriate, feasible, and relevant to the specific context. Furthermore, this study was conducted in 3 PE female grade 9 and grade 10 mixed classes over 2 terms which enhanced the data collection process and gave the opportunity to gain a variety of perspectives at different time points in the school year.

By examining the feasibility, acceptability, and effectiveness of a self-compassion group-based psychoeducation workshop with homework exercises, the study could contribute to the development of new interventions for this population and future programming hence its strong recommendations provided by the girls. Body related distressing experiences are common among adolescent girls and can have negative effects on mental health, physical health, and academic performance. These experiences can even in part contribute to girls becoming less active and dropping out of PE and PA opportunities. Addressing these issues through the current study, opens an opportunity through the education system, whereby, PE is a setting and curriculum that could have room for working on furthering this intervention.

## 5.5 Limitations

The present findings should be considered in light of several study limitations. First, our sample comprised of all participants from the same PE school, same 2 teachers and was small in size. There was a workshop launched in the fall and in the winter to try and gather a more diverse perspective, however, there may be some bias and/or similar responses given the high school resides in an area where participants are most likely coming from similar elementary schools and/or having the same peers throughout their schooling. Moreover, it is unclear, if the intervention would be effective with 1 single session as the quantitative measures did not show significance comparing baseline to post-workshop or baseline to end of intervention differences in scores. However, there was promising regard toward their qualitative responses and given the short-term nature, it would be worthwhile to investigate whether its effects would be more

prominent with additional sessions as per previous self-compassion interventions in other contexts.

A large limitation of this work is that it includes no measurement of race, or ethnicity. Body image research suggests that body image experiences and weight stigmatization differ between ethnic groups (Epperson et al., 2014; Schooler et al., 2004; Robbins et al., 2017). Thus, it is necessary to explore how self-compassion exercises in the context of PE class and body-related distressing experiences may be more or less influential for girls belonging to different ethnic groups. Additionally, broad criteria was used to guide participants through the self-compassion body-related distressing experiences, therefore, participants could have been recalling very different experiences from one another which may have impacted the length to which the self-compassion exercises were applicable.

This study also did not have a control group which could have provided a baseline for comparison against the self-compassion workshop and homework exercises (experimental group). By comparing the outcomes of the experimental group to those of the control group, researchers can determine if the intervention had a significant effect. This also could rule out other possible explanations for any observed changes.

Another possible limitation in this study was the large group feedback session attendance. On the positive side, it can provide a wider range of opinions, perspectives, and experiences. Potentially even identifying patterns in the data that might not be evident in a smaller group. However, typically, it is suggested that there be between 8-12 people (Robson, 2002), while some others have argued that smaller groups of 5-7 participants may be more appropriate (Brown, 1999). Having the group feedback session numbers range from 18-26 may have led to “groupthink”, which may have led participants conforming to the dominant opinions within the group, which could bias the data collected.

Potential limitations associated with the scales also need to be considered. While the BICSI scale has been used in other adolescent populations (Maes et al., 2021; Avci et al., 2018; Irani et al., 2018), it has yet to be validated or adapted for youth. The scale did provide good internal consistency; however, it is possible that the student’s did not fully grasp the concepts being measured as the scale was originally developed for 18–29-year-olds. Future research

should investigate evaluating this scale in youth populations and making adaptations where necessary. Additionally, the self-compassion youth scale (Neff, 2021) was used and designed for 10–14-year-olds. This study had 14–16-year-olds involved, so therefore, in retrospect the self-compassion scale (Neff, 2003) or self-compassion scale short form (Raes et al., 2011) would be better suited as it is appropriate for ages 14 and up. Additionally, only 1-item was used to measure physical education likelihood of re-enrollment and physical activity behaviour, future research should look into why participants are choosing to not re-enroll in physical education class and measure physical activity using validated self-report measures (i.e., PAQ-A (Kowalski et al., 2007)).

Possible limitations associated with the PE experience as a whole also need to be considered. While only participants who were enrolled in PE class were part of the sample, there are many varying factors that can contribute to one's body related distressing experience, coping mechanisms, self-compassion, and attitudes towards PA and PE enrollment. Furthermore, many factors could contribute to participants practicing self-compassion over the month and each individual experiences. Considering this, future research should ask more specific questions to specific experiences, for example, some participants were not physically active at baseline and end of intervention whereas others were quite physically active outside of PE class so it would be interesting for future research to look into whether participants were enrolled in school sports or extracurricular sports providing them additional physical activity in their day, as well as if those who are more involved were more or less compassionate which may have in part influenced findings. Another area of limitation was regarding the PE likelihood of re-enrollment. Future research could follow up on why girls may not want to participate in PE class. There could be other reasons for why they may not want to participate in the future and not just solely due to body related distressing experiences.

## 5.6 Practical Implications

There are several practical implications that this research has. First, this study provided great insight into a brief self-compassion intervention being feasible, acceptable, and effective for grade 9 and grade 10 girls in a PE setting to help deal with body-related distressing experiences. The findings of the study can help in developing interventions that specifically target body-related distressing experiences among girls involved in PE or previously dropped out of PE.

Moreover, the study also identified recommendations on how to modify the workshop to ensure it is even more so feasible for implementation at the school board PE curriculum level. As discussed by many of the girls, integrating a self-compassion workshop in grade 9 and grade 10 is beneficial however, not sufficient enough, and thus should be integrated in earlier elementary school years when their bodies are starting to go through puberty. It can also provide insights into how PE programs can be structured to promote positive body image and mental health. This work can also help educators and policymakers understand the importance of specific body-related coping mechanisms (i.e., self-compassion) to be further implemented into curriculum. Additionally, this workshop may have the potential to help girls deal with body-related distressing experiences outside of PE which is crucial for one's overall mental and physical health. Girls with negative thoughts and/or feelings towards their bodies are more likely to develop certain mental health conditions and thus intervening in adolescence before girls reach adulthood is beneficial. This workshop could also be integrated into professional development opportunities for PE teachers and would provide them with the skills and knowledge needed to incorporate self-compassion practices and similar exercises into their instruction to support their girls.

## 5.7 Conclusions

Girls are disengaging from PE – a developmentally important school-related physical activity that builds on motor skills and health-promotion. Research has shown that the PE context has been a space that many girls report and recall many negative experiences around their bodies. Self-compassion is one effective self and emotion regulation strategy that has been researched to be useful in managing difficult body-related experiences, and thus has shown reduced body comparisons in girls and greater appreciation for body functionality. However, the absence of research examining self-compassion applied in PA settings and more specifically, PE classes leaves much unknown. This study highlights the feasibility, acceptability, and effectiveness of a peer-based brief self-compassion workshop with 1-month of self-compassion homework exercises in a PE class with grade 9 and grade 10 girls. In support of the hypotheses, the findings demonstrated great feasibility, acceptability, and effectiveness towards a self-compassion intervention in a PE setting. However, future research is needed to extend the growing evidence that self-compassion can be a coping strategy used to deal with body-related



distressing experiences in PE class and moreover, look further into self-compassion workshops over the developmental period for girls.

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## Appendices

### Appendix A: Study Approval from Western Non-Medical Research Ethics Board



**Date:** 26 September 2022

**To:** Dr. Eva Pila

**Project ID:** 121580

**Study Title:** Examining the feasibility, acceptability, and effectiveness of a self-compassion workshop in physical education class for adolescent girls

**Short Title:** Physical Education & Self-Compassion Workshop

**Application Type:** NMREB Initial Application

**Review Type:** Delegated

**Full Board Reporting Date:** 07/Oct/2022

**Date Approval Issued:** 26/Sep/2022 15:32

**REB Approval Expiry Date:** 26/Sep/2023

Dear Dr. Eva Pila

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the above mentioned study, as of the date noted above. NMREB approval for this study remains valid until the expiry date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

This research study is to be conducted by the investigator noted above. **All other required institutional approvals and mandated training must also be obtained prior to the conduct of the study.**

**Documents Approved:**

Document Name	Document Type	Document Date	Document Version
papersurvey,september17,1monthfollowup	Paper Survey	17/Sep/2022	2
papersurvey,september17,preworkshop	Paper Survey	17/Sep/2022	2
papersurvey,september17,postworkshop	Paper Survey	17/Sep/2022	2
participanthomeworkmanual,september17	Other Data Collection Instruments	17/Sep/2022	2
onemonthfollowupvisit,september17	Other Data Collection Instruments	17/Sep/2022	2
prestudyvisit,september17	Oral Script	17/Sep/2022	2
FACILITATOR-focusgroupsession	Focus Group(s) Guide	17/Sep/2022	2
facilitatorworkshopmanual	Other Data Collection Instruments	17/Sep/2022	2
PARTICIPANT-workshopmanual	Other Data Collection Instruments	17/Sep/2022	2
studyprotocol,september22	Protocol	22/Sep/2022	3
consentform,september22	Written Consent/Assent	22/Sep/2022	3

No deviations from, or changes to the protocol should be initiated without prior written approval from the NMREB, except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Ms. Zoë Levi, Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

## Appendix B: Study Approval from the LDCSB

Hi Vanessa,

Thanks for making the revisions to the parent LOI.

We're good to go.

**Terry**

**Terry** Spencer  
Research and Evaluation Officer  
5200 Wellington Rd. S., London, ON N6E 3X8  
Office: [REDACTED] Ext. [REDACTED]



## Appendix C: Parent Letter of Information

### **Parent Letter of Information**

#### **Letter of Information**

**Project Title:** Feasibility, acceptability, and effectiveness of a self-compassion workshop in a physical education class for adolescent females

**Principal Investigator:** Dr. Eva Pila

**Address:** X, Thames Hall, Western University

**Telephone Number:** X

**Email:** X

#### **1. Invitation to Participate**

We are inviting your child to take part in a research study because they are enrolled in a Grade 9/10 female physical education class at St. Andre Bessette. They will take part in an educational workshop as part of the course curriculum, and your child is being invited to participate in a research portion of this lesson.

#### **2. Why is this study being done?**

The purpose of this voluntary research study is to examine the feasibility, acceptability, and effectiveness of a self-compassion-based workshop in a physical education setting.

#### **3. How long will your child be in this study?**

Your child is being asked to complete a 75-minute self-compassion workshop, and a voluntary 75-minute debrief focus group session, followed by a 1-month follow up survey, all completed during their physical education class time.

#### **4. What are the study procedures?**

We are asking your child to participate in a study that will investigate how adolescent females experience a self-compassion workshop in a physical education setting. She will participate in a 75-minute group self-compassion workshop and a 75-minute follow-up focus group session following the workshop. Both the workshop and focus group sessions will be audio recorded. The researcher wishes to use personal quotes, or titles from the workshop, surveys and focus group comments for research and publication purposes. Each participant will be given a manual for the workshop to complete throughout the workshop session. The workshop and the focus group session will take place over 2 physical education class days. Additionally, they will complete 3 surveys total (pre-workshop, post-workshop, 1-month follow up) and the surveys should take no longer than 10 minutes each. They will be given a homework manual to complete over the 4-weeks of the study before completing the 1-month follow up survey. The homework manual activities depend on commitment level which may take 15 mins per day or only 15mins per week. All study procedures except the homework manual will occur during allocated physical education class time during school hours.

#### **6. What are the risks and harms of participating in this study?**

As with any research study, there are risks that are not known. It is possible that upon reflection of your child's experiences, and responses to the focus group session may lead to some positive or negative emotions. However, there is no known foreseeable psychological or emotional harm in completing the brief survey. You are under no obligation to answer every question in the survey or debrief session. If your emotions or thoughts regarding any questions in the questionnaire are concerning you, please contact Kids Help Phone, 1-800-668-6868.

#### **7. What are the benefits of participating in this study?**

There are no direct benefits for choosing to participate in this study. However, a potential

benefit of participating in this study is that the compassion tools learned may be useful to your child and may help them manage distressing situations that may arise during PE. The results of this research may help inform future physical education practices.

#### **8. Can participants choose to leave the study?**

Yes. Participation in research is completely voluntary. You can decide to participate or not to participate at any time. Please email the Principal Investigator, Dr. Eva Pila, or her research assistant, Vanessa Coulbeck, if you wish to withdraw.

If you choose to withdraw your participation and your data has already been collected, we will be able to remove it prior to publication. If the data has already been analyzed and published, we will not be able to remove your data.

#### **9. How will participants' information be kept confidential?**

Information gathered during this study will be used for research purposes only (i.e., academic research publication). A number of precautions will be taken to support the confidentiality of the information that you will provide. Results from this study will be analyzed using study ID codes to de-identify data. A master list will be used to track the ID codes with (i.e., name, age and grade). The Institutional Review Board at Western University may access the study data to ensure proper data management and to verify the ethical conduct of the study. No additional persons other than the members of the research team will have access to the interview transcripts, audio (i.e., portable voice recorder) files (i.e., 75-minute workshop session and 75-minute focus group session), or any other supporting documentation, which will be securely stored for seven years as required by Western University. After this time, the principal investigator will destroy all related study documents. It is important to note that a record of your participation must remain with the study, and as such, the researchers may not be able to destroy your signed letter of

information and consent, or your name on the master list. However, any data may be withdrawn upon your request. Please be advised that although the researchers will take every precaution to maintain the confidentiality of the data, the nature of focus groups prevents the researchers from guaranteeing confidentiality. The researchers would like to remind participants to respect the privacy of your fellow participants and not repeat what is said in the focus group to others.

**10. Are participants compensated to be in this study?**

No.

**11. What are the rights of participants?**

Taking part in this research study is voluntary.

Your child does not have to be in this research. If they choose to be in this research, they have the right to stop at any time. If they decide not to be in this research or if you decide to stop at a later date, there will be no penalty or loss of benefits to which you are entitled.

Your child does not waive any legal rights by consenting to this study. If they wish to withdraw their data, please contact the research assistant or Principal Investigator named below.

**12. Whom do participants contact for questions?**

Please contact the Principal Investigator, Dr. Eva Pila (X) or the primary research assistant, Vanessa Coulbeck (X) if you:

- Have questions, complaints or concerns about the research, including questions about compensation.
- Believe your child may have been harmed by being in the research study or would like to withdraw from the study.

You may also contact the Office of Research Ethics at Western University at (519)-661-3036, [ethics@uwo.ca](mailto:ethics@uwo.ca) if you:

- Have questions regarding your rights as a person in a research study.
- Have concerns, complaints, or general questions about the research.

This letter is yours to keep for future reference.

**Your child will provide consent to participate, and consent is not required from parents.**

If you wish to not have your child participate in this research study, please fill out the information below, and return to \_\_\_\_\_ (insert email/ date).

Your Name: \_\_\_\_\_ Date \_\_\_\_\_

Your Child's Name: \_\_\_\_\_

Your signature: \_\_\_\_\_

## Appendix D: Participants Letter of Information and Informed Consent

### **Letter of Information and Consent**

**Project Title:** Feasibility, acceptability, and effectiveness of a self-compassion workshop in a physical education class for adolescent females

**Principal Investigator:** Dr. Eva Pila

**Address:** X, Thames Hall, Western University

**Telephone Number:** X

**Email:** X

### **1. Invitation to Participate**

We invite you to take part in a research study because you are enrolled in a Grade 9/10 female physical education class at St. Andre Bessette. You will take part in an educational workshop as part of the course curriculum, and you are being invited to participate in a research portion of this lesson.

### **2. Why is this study being done?**

The purpose of this voluntary research study is to examine the feasibility, acceptability, and effectiveness of a self-compassion-based workshop in a physical education setting.

### **3. How long will you be in this study?**

You are being asked to complete a 75-minute self-compassion workshop, and a voluntary 75-minute debrief focus group session, followed by a 1-month follow up survey.

#### **4. What are the study procedures?**

We are asking your permission to participate in a study that will investigate how adolescent females experience a self-compassion workshop in a physical education setting. You will participate in a 75-minute group self-compassion workshop and a 75-minute follow-up focus group session following the workshop. Both the workshop and focus group sessions will be audio recorded. The researcher wishes to use personal quotes, or titles from the workshop, surveys and focus group comments for research and publication purposes. Each participant will be given a manual for the workshop to complete throughout the workshop session. The workshop and the focus group session will take place over 2 days. Additionally, you will complete 3 surveys total (pre-workshop, post-workshop, 1-month follow up) and the surveys should take you no longer than 10 minutes each. You will be given a homework manual to complete over the 4-weeks of the study before completing the 1-month follow up survey. The homework manual activities depend on commitment level which may take 15 mins per day or only 15mins per week. All study procedures except the homework manual will occur during allocated physical education class time during school hours.

#### **5. What is the inclusion criteria?**

Participants are Grade 9 and Grade 10 females enrolled in physical education class at St. Andre Bessette.

#### **6. What are the risks and harms of participating in this study?**

As with any research study, there are risks that are not known. It is possible that upon reflection of your experiences, and your responses to the focus group session may lead to some positive or negative emotions. However, there is no known foreseeable psychological or emotional harm in completing the brief survey. You are under no obligation to answer every question in the survey or debrief session. If your emotions or thoughts regarding any questions in the questionnaire are concerning you, please contact Kids Help Phone, 1-800-668-6868.

**7. What are the benefits of participating in this study?**

There are no direct benefits for choosing to participate in this study. However, a potential benefit of participating in this study is that the compassion tools learned may be useful to you and may help you manage distressing situations that may arise during PE. The results of this research may help inform future physical education practices.

**8. Can participants choose to leave the study?**

Yes. Participation in research is completely voluntary. You can decide to participate or not to participate at any time. Please email the Principal Investigator, Dr. Eva Pila, or her research assistant, Vanessa Coulbeck, if you wish to withdraw.

If you choose to withdraw your participation and your data has already been collected, we will be able to remove it prior to publication. If the data has already been analyzed and published, we will not be able to remove your data.

**9. How will participants' information be kept confidential?**

Information gathered during this study will be used for research purposes only (i.e., academic research publication). A number of precautions will be taken to support the confidentiality of the information that you will provide. Results from this study will be analyzed using study ID codes to de-identify data. A master list will be used to track the ID codes with (i.e., name, age and grade). The Institutional Review Board at Western University may access the study data to ensure proper data management and to verify the ethical conduct of the study. No additional persons other than the members of the research team will have access to the interview transcripts, audio (i.e., portable voice recorder) files (i.e., 75-minute workshop session and 75-minute focus group session), or any other supporting documentation, which will be securely stored for seven years as required by Western University. After this time, the principal



investigator will destroy all related study documents. It is important to note that a record of your participation must remain with the study, and as such, the researchers may not be able to destroy your signed letter of information and consent, or your name on the master list. However, any data may be withdrawn upon your request. Please be advised that although the researchers will take every precaution to maintain the confidentiality of the data, the nature of focus groups prevents the researchers from guaranteeing confidentiality. The researchers would like to remind participants to respect the privacy of your fellow participants and not repeat what is said in the focus group to others.

**10. Are participants compensated to be in this study?**

No.

**11. What are the rights of participants?**

Taking part in this research study is voluntary.

You do not have to be in this research. If you choose to be in this research, you have the right to stop at any time. If you decide not to be in this research or if you decide to stop at a later date, there will be no penalty or loss of benefits to which you are entitled.

You do not waive any legal rights by consenting to this study. If you wish to withdraw your data, please contact the research assistant or Principal Investigator named below.

**12. Whom do participants contact for questions?**

Please contact the Principal Investigator, Dr. Eva Pila (X) or the primary research assistant, Vanessa Coulbeck (X) if you:

- Have questions, complaints or concerns about the research, including questions about compensation.

- Believe you may have been harmed by being in the research study. Would like to withdraw from the study

You may also contact the Office of Research Ethics at Western University at (519)-661-3036, [ethics@uwo.ca](mailto:ethics@uwo.ca) if you:

- Have questions regarding your rights as a person in a research study.
- Have concerns, complaints, or general questions about the research.

This letter is yours to keep for future reference.

### **Declaration of Consent**

A signed copy of this consent form will be kept by the researchers, and you may keep a copy for your personal records.

Your parents have been notified of this study. Though parental consent is not required your parents have the ability to withdraw their child from the study.

Your study ID is made up of the last 4 digits of your phone number, the initials of your first and last name, and the initial of your street name.

For example, if the last 4 digits of your phone number was "6782", your name was Kate Smith, and your street name was Meadow, your unique ID would be "6782KSM".

Do you consent to having our research team use personal quotes, or titles from our workshop, surveys and focus group comments for research and publication purposes?

Yes

No

**I have read the content of this consent form, and I agree to participate in this study.**

Your Name: \_\_\_\_\_ Date \_\_\_\_\_

Your study ID: \_\_\_\_\_

Your signature: \_\_\_\_\_

My signature means that I have explained the study to the participant named above. I have answered all questions.

Researcher: \_\_\_\_\_ Signature: \_\_\_\_\_

## Appendix E: Baseline Survey

### Pre- Workshop Survey

1. What is your study ID? \_\_\_\_\_

Note: Your study ID is made up of the last 4 digits of your phone number, the initials of your first and last name, and the initial of your street name.

For example, if the last 4 digits of your phone number was "6782", your name was Kate Smith, and your street name was Meadow, your unique ID would be "6782KSM".

2. What is your current age in years? \_\_\_\_\_
3. What grade are you in? \_\_\_\_\_
4. Was this specific class a course requirement for you? \_\_\_\_\_

5. How likely are you to enroll in physical education class again next year? *Please circle your answer.*

Very unlikely to enroll next year	Unlikely	Undecided	Likely	Very likely to enroll next year
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6. Right now, how often do you typically engage in physical activity outside of physical education class? *Please circle your answer.*

Never engage in physical activity outside of class	1-2 days per week	3-4 days per week	5-6 days per week	Once per day or more
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### **The Self-Compassion Scale Youth Version (SCS-Youth)**

*Please read each sentence carefully and indicate the answer that best describes how you act towards yourself in difficult times.*

I try to be kind and supportive to myself when I'm having a hard time.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel sad or down, it seems like I'm the only one who feels that way.	Almost never	Not very often	Sometimes	Very often	Almost always
When I notice things about myself that I don't like, I get really frustrated.	Almost never	Not very often	Sometimes	Very often	Almost always

When I feel I'm not "good enough" in some way, I try to remind myself that other people sometimes feel this way too.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel frustrated or disappointed, I think about it over and over again.	Almost never	Not very often	Sometimes	Very often	Almost always
When something upsetting happens I try to see things as they are without blowing it out of proportion.	Almost never	Not very often	Sometimes	Very often	Almost always
I get mad at myself for not being better at some things.	Almost never	Not very often	Sometimes	Very often	Almost always
When I'm sad or unhappy, I remember that other people also feel this way at times.	Almost never	Not very often	Sometimes	Very often	Almost always
I'm kind to myself when things go wrong and I'm feeling bad.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel bad or upset, I tend to feel most other people are probably happier than I am.	Almost never	Not very often	Sometimes	Very often	Almost always
When something difficult happens, I try to see things clearly without exaggerations.	Almost never	Not very often	Sometimes	Very often	Almost always
I'm really hard on myself when I do something wrong.	Almost never	Not very often	Sometimes	Very often	Almost always

When things aren't going well, I keep in mind that life is sometimes hard for everyone.	Almost never	Not very often	Sometimes	Very often	Almost always
When I'm feeling bad or upset, I can't think of anything else at the time.	Almost never	Not very often	Sometimes	Very often	Almost always
I try to be understanding and patient with myself even when I mess up.	Almost never	Not very often	Sometimes	Very often	Almost always
When I'm really struggling, I tend to feel like other people are probably having an easier time of it.	Almost never	Not very often	Sometimes	Very often	Almost always
When something upsets me, I try to notice my feelings and not get carried away by them.	Almost never	Not very often	Sometimes	Very often	Almost always

### **Body Image Coping Strategies Inventory**

“Body Image” refers to how we think and feel about our own physical appearance. In the course of everyday life, there are situations and events that occur which can negatively affect our body image. These situations and events are called “body image threats or challenges,” because they threaten or challenge our ability to feel okay about our looks.

People do lots of different things to cope or deal with these challenges or threats. Listed below are some of the ways that people may try to cope with body image threats or challenges. **For each item, think about how much it is characteristic of how you usually cope or would probably cope with an event or situation that poses a threat or challenge to your body image feelings.**

Using the scale below, indicate how well each way of coping describes what you actually do or would do. There are no right or wrong answers. It doesn't matter how helpful or unhelpful your ways of coping are. Don't answer based on how you wish you usually reacted. Just be completely truthful.

I spend extra time trying to fix what I don't like about my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I consciously do something that might make me feel good about myself as a person.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I try to tune out my thoughts and feelings.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I seek reassurance about my looks from other people.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I do something to try to look more attractive.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I spend more time in front of the mirror.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I try to ignore the situation and my feelings.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I think about what I should do to change my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I avoid looking at myself in the mirror.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me



I remind myself of my good qualities.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I eat something to help me deal with the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that I'm just being irrational about things.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I fantasize about looking different.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I think about how I could "cover up" what's troublesome about my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that the situation will pass.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I try to figure out why I am challenged or threatened by the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that I am helpless to do anything about the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that I am probably just overreacting to the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I compare my appearance to that of physically attractive people.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I remind myself that I will feel	Definitely <i>Not</i>	Mostly <i>Not</i> Like	Mostly Like Me	Definitely

better after a while.	Like Me	Me		Like Me
I react by overeating.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that there are more important things than what I look like.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that I probably look better than I feel that I do.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I make a special effort to look my best.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I withdraw and interact less with others.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I make a special effort to hide or "cover up" what's troublesome about my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I react by being especially patient with myself.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I make no attempt to cope or deal with the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that the situation is not that important.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me

## Appendix F: Post-Workshop Survey

### Post-Workshop Survey

7. What is your study ID? \_\_\_\_\_

Note: Your study ID is made up of the last 4 digits of your phone number, the initials of your first and last name, and the initial of your street name.

For example, if the last 4 digits of your phone number was "6782", your name was Kate Smith, and your street name was Meadow, your unique ID would be "6782KSM".

8. How likely are you to enroll in physical education class again next year? *Please circle your answer.*

Very unlikely to enroll next year	Unlikely	Undecided	Likely	Very likely to enroll next year
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9. In the next week, how often do you plan on engaging in physical activity outside of physical education class? *Please circle your answer.*

0 days	1-2 days	3-4 days	5-6 days	Once per day or more
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### Treatment Acceptability Questionnaire

*Please read each question carefully and indicate the answer that best describes your thoughts on the workshop. Please answer honestly using the following scale.*

How <b>acceptable</b> did you find the workshop to be?	Very unacceptable	Unacceptable	Somewhat unacceptable	Neutral	Somewhat acceptable	Acceptable	Very acceptable
How <b>ethical</b> do you think this workshop is?	Very unethical	Unethical	Somewhat unethical	Neutral	Somewhat ethical	Ethical	Very ethical
How <b>effective</b> do you think this workshop was?	Very ineffective	Ineffective	Somewhat Ineffective	Neutral	Somewhat effective	Effective	Very effective
How likely do you think this workshop might have <b>negative side effects</b> ?	Very unlikely	Unlikely	Somewhat unlikely	Neutral	Somewhat likely	Likely	Very likely
How <b>knowledgeable</b> do	Very unknowledgeable	Unknowledgeable	Somewhat unknowledgea	Neutral	Somewhat knowledgeable	Knowledgeable	Very knowledgeable

you think the facilitator is?			ble				
How <b>trustworthy</b> do you think the facilitator is?	Very untrustworthy	Untrustworthy	Somewhat untrustworthy	Neutral	Somewhat trustworthy	Trustworthy	Very trustworthy
Do you feel the facilitator presented the material in a <b>useful and understandable</b> way	Very confusing	Confusing	Somewhat confusing	Neutral	Somewhat understandable	Understandable	Very understandable
How likely would you be to <b>refer this workshop</b> to other females your age?	Highly unlikely	Unlikely	Somewhat unlikely	Neutral	Somewhat likely	Likely	Very likely
Do you think this workshop would be <b>beneficial for other females</b> taking physical education class?	Very unbeneficial	Unbeneficial	Somewhat unbeneficial	Neutral	Somewhat beneficial	Beneficial	Very beneficial

**The Self-Compassion Scale Youth Version (SCS-Youth)**

*Please read each sentence carefully and indicate the answer that best describes how you act towards yourself in difficult times.*

I try to be kind and supportive to myself when I'm having a hard time.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel sad or down, it seems like I'm the only one who feels that way.	Almost never	Not very often	Sometimes	Very often	Almost always
When I notice things about myself that I don't like, I get really frustrated.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel I'm not "good enough" in some way, I try to remind myself that other people sometimes feel this way too.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel frustrated or disappointed, I think about it over and over again.	Almost never	Not very often	Sometimes	Very often	Almost always
When something upsetting happens I try to see things as they are without blowing it out of proportion.	Almost never	Not very often	Sometimes	Very often	Almost always
I get mad at myself for not being better at some things.	Almost never	Not very often	Sometimes	Very often	Almost always
When I'm sad or unhappy, I remember that other people also feel this way at times.	Almost never	Not very often	Sometimes	Very often	Almost always

I'm kind to myself when things go wrong and I'm feeling bad.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel bad or upset, I tend to feel most other people are probably happier than I am.	Almost never	Not very often	Sometimes	Very often	Almost always
When something difficult happens, I try to see things clearly without exaggerations.	Almost never	Not very often	Sometimes	Very often	Almost always
I'm really hard on myself when I do something wrong.	Almost never	Not very often	Sometimes	Very often	Almost always
When things aren't going well, I keep in mind that life is sometimes hard for everyone.	Almost never	Not very often	Sometimes	Very often	Almost always
When I'm feeling bad or upset, I can't think of anything else at the time.	Almost never	Not very often	Sometimes	Very often	Almost always
I try to be understanding and patient with myself even when I mess up.	Almost never	Not very often	Sometimes	Very often	Almost always
When I'm really struggling, I tend to feel like other people are probably having an easier time of it.	Almost never	Not very often	Sometimes	Very often	Almost always
When something upsets me, I try to notice my feelings and not get carried away by them.	Almost never	Not very often	Sometimes	Very often	Almost always

## **Body Image Coping Strategies Inventory**

“Body Image” refers to how we think and feel about our own physical appearance. In the course of everyday life, there are situations and events that occur which can negatively affect our body image. These situations and events are called “body image threats or challenges,” because they threaten or challenge our ability to feel okay about our looks.

People do lots of different things to cope or deal with these challenges or threats. Listed below are some of the ways that people may try to cope with body image threats or challenges. **For each item, think about how much it is characteristic of how you usually cope or would probably cope with an event or situation that poses a threat or challenge to your body image feelings.**

Using the scale below, indicate how well each way of coping describes what you actually do or would do. There are no right or wrong answers. It doesn't matter how helpful or unhelpful your ways of coping are. Don't answer based on how you wish you usually reacted. Just be completely truthful.

I spend extra time trying to fix what I don't like about my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I consciously do something that might make me feel good about myself as a person.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I try to tune out my thoughts and feelings.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I seek reassurance about my looks from other people.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I do something to try to look	Definitely <i>Not</i>	Mostly <i>Not</i> Like	Mostly Like Me	Definitely



more attractive.	Like Me	Me		Like Me
I spend more time in front of the mirror.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I try to ignore the situation and my feelings.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I think about what I should do to change my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I avoid looking at myself in the mirror.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I remind myself of my good qualities.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I eat something to help me deal with the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that I'm just being irrational about things.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I fantasize about looking different.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I think about how I could "cover up" what's troublesome about my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that the situation will pass.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I try to figure out why I am	Definitely <i>Not</i>	Mostly <i>Not</i> Like	Mostly Like Me	Definitely

challenged or threatened by the situation.	Like Me	Me		Like Me
I tell myself that I am helpless to do anything about the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that I am probably just overreacting to the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I compare my appearance to that of physically attractive people.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I remind myself that I will feel better after a while.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I react by overeating.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that there are more important things than what I look like.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that I probably look better than I feel that I do.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I make a special effort to look my best.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I withdraw and interact less with others.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I make a special effort to hide or "cover up" what's troublesome about my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me

I react by being especially patient with myself.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I make no attempt to cope or deal with the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that the situation is not that important.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me

## Appendix G: 1-Month Follow-Up Survey

### **1-Month Follow- Up Survey**

1. What is your study ID? \_\_\_\_\_

Note: Your study ID is made up of the last 4 digits of your phone number, the initials of your first and last name, and the initial of your street name.

For example, if the last 4 digits of your phone number was "6782", your name was Kate Smith, and your street name was Meadow, your unique ID would be "6782KSM".

2. How likely are you to enroll in physical education class again next year? *Please circle your answer.*

Very unlikely to enroll next year	Unlikely	Undecided	Likely	Very likely to enroll next year
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3. In the past month, how often have you engaged in physical activity outside of physical education class? *Please circle your answer.*

0 days	1-2 days per week	3-4 days per week	5-6 days per week	Once per day or more
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4. The exercises below were outlined in the homework manual. From the past 4-weeks check off which exercises you have used and write out approximately how many times you used them.

- At home exercises:
  - Self-compassion mantras \_\_\_\_\_
  - Relating to ourselves with self-compassion \_\_\_\_\_
  - Loving kindness meditation \_\_\_\_\_
  - Using self-compassion to strengthen yourself relationship \_\_\_\_\_
  - Self-compassion break \_\_\_\_\_
  - What aspects of self-compassion do you need now? \_\_\_\_\_
  - Finding your compassionate voice \_\_\_\_\_
  - Self-compassion meditation during PE class \_\_\_\_\_
  - Cultivating joy practice \_\_\_\_\_
  - Compassionate self-imagery \_\_\_\_\_

5. Thinking back to the workshop activities. Check off any exercises you have used the past month if any and approximately how many times you used them.

1. Grounding practice \_\_\_\_\_
2. Self-compassion mantras \_\_\_\_\_
3. How would you treat a friend? \_\_\_\_\_
4. Compassionate letter to myself \_\_\_\_\_
5. Self-Compassion Group Letter/Contract \_\_\_\_\_

6. To what extent was the workshop helpful in supporting you to deal with body-related distressing situations the past month?

1. Not helpful at all
2. Somewhat unhelpful
3. Neutral
4. Somewhat helpful
5. Very helpful

7. Did the workshop help you learn new self-compassion tools to use during physical activity?
  1. Did not learn any new tools
  2. Learned some new tools
  3. Learned all new tools
  
8. Do you think having more workshop sessions would help you retain the practice of self-compassion better?
  1. Not necessary to have more sessions
  2. A follow up workshop might be beneficial
  3. A few more workshops might be beneficial
  4. Workshops embedded into the physical education curriculum might be beneficial
  
9. Was the workshop helpful in supporting you to practice self-compassion this past month?
  1. Yes
  2. No
  
10. In the past month, did you use any of these techniques/exercises outside of physical education class (i.e., day to day life, or in another physical activity?)
  1. Yes
  2. No
  
11. If answered yes to question #9, which techniques/exercises did you use? And in what context?  

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12. How frequently did you engage in self-compassion practice this month?
  1. Not at all
  2. 1-2 times this month
  3. Once a week
  4. A few times a week
  5. Every day

**The Self-Compassion Scale Youth Version (SCS-Youth)**

*Please read each sentence carefully and indicate the answer that best describes how you act towards yourself in difficult times.*

I try to be kind and supportive to myself when I'm having a hard time.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel sad or down, it seems like I'm the only one who feels that way.	Almost never	Not very often	Sometimes	Very often	Almost always
When I notice things about myself that I don't like, I get really frustrated.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel I'm not "good enough" in some way, I try to remind myself that other people sometimes feel this way too.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel frustrated or disappointed, I think about it over and over again.	Almost never	Not very often	Sometimes	Very often	Almost always
When something upsetting happens I try to see things as they are without blowing it out of proportion.	Almost never	Not very often	Sometimes	Very often	Almost always
I get mad at myself for not being better at some things.	Almost never	Not very often	Sometimes	Very often	Almost always
When I'm sad or unhappy, I remember that other people also feel this way at times.	Almost never	Not very often	Sometimes	Very often	Almost always

I'm kind to myself when things go wrong and I'm feeling bad.	Almost never	Not very often	Sometimes	Very often	Almost always
When I feel bad or upset, I tend to feel most other people are probably happier than I am.	Almost never	Not very often	Sometimes	Very often	Almost always
When something difficult happens, I try to see things clearly without exaggerations.	Almost never	Not very often	Sometimes	Very often	Almost always
I'm really hard on myself when I do something wrong.	Almost never	Not very often	Sometimes	Very often	Almost always
When things aren't going well, I keep in mind that life is sometimes hard for everyone.	Almost never	Not very often	Sometimes	Very often	Almost always
When I'm feeling bad or upset, I can't think of anything else at the time.	Almost never	Not very often	Sometimes	Very often	Almost always
I try to be understanding and patient with myself even when I mess up.	Almost never	Not very often	Sometimes	Very often	Almost always
When I'm really struggling, I tend to feel like other people are probably having an easier time of it.	Almost never	Not very often	Sometimes	Very often	Almost always
When something upsets me, I try to notice my feelings and not get carried away by them.	Almost never	Not very often	Sometimes	Very often	Almost always

## **Body Image Coping Strategies Inventory**

“Body Image” refers to how we think and feel about our own physical appearance. In the course of everyday life, there are situations and events that occur which can negatively affect our body image. These situations and events are called “body image threats or challenges,” because they threaten or challenge our ability to feel okay about our looks.

People do lots of different things to cope or deal with these challenges or threats. Listed below are some of the ways that people may try to cope with body image threats or challenges. **For each item, think about how much it is characteristic of how you usually cope or would probably cope with an event or situation that poses a threat or challenge to your body image feelings.**

Using the scale below, indicate how well each way of coping describes what you actually do or would do. There are no right or wrong answers. It doesn't matter how helpful or unhelpful your ways of coping are. Don't answer based on how you wish you usually reacted. Just be completely truthful.

I spend extra time trying to fix what I don't like about my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I consciously do something that might make me feel good about myself as a person.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I try to tune out my thoughts and feelings.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I seek reassurance about my looks from other people.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I do something to try to look	Definitely <i>Not</i>	Mostly <i>Not</i> Like	Mostly Like Me	Definitely



more attractive.	Like Me	Me		Like Me
I spend more time in front of the mirror.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I try to ignore the situation and my feelings.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I think about what I should do to change my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I avoid looking at myself in the mirror.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I remind myself of my good qualities.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I eat something to help me deal with the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that I'm just being irrational about things.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I fantasize about looking different.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I think about how I could "cover up" what's troublesome about my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that the situation will pass.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I try to figure out why I am	Definitely <i>Not</i>	Mostly <i>Not</i> Like	Mostly Like Me	Definitely

challenged or threatened by the situation.	Like Me	Me		Like Me
I tell myself that I am helpless to do anything about the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that I am probably just overreacting to the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I compare my appearance to that of physically attractive people.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I remind myself that I will feel better after a while.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I react by overeating.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that there are more important things than what I look like.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that I probably look better than I feel that I do.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I make a special effort to look my best.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I withdraw and interact less with others.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I make a special effort to hide or "cover up" what's troublesome about my looks.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me

I react by being especially patient with myself.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I make no attempt to cope or deal with the situation.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me
I tell myself that the situation is not that important.	Definitely <i>Not</i> Like Me	Mostly <i>Not</i> Like Me	Mostly Like Me	Definitely Like Me

## Appendix H: Participant Workshop Manual

### **PARTICIPANT- Workshop Manual**

#### Notes:

- There is space dedicated to each activity below each activity directions.
- If you require more space, you can complete the rest of the activity on the blank pages at the end of the workbook.

### **EXERCISE #1: INFORMAL GROUNDING PRACTICE: Feeling the Soles of Your Feet**

This practice is designed to stabilize and ground you when you are experiencing overwhelming emotions (e.g., anger).

- Stand up and feel the soles of your feet on the floor. This can be done with or without shoes.
- Begin to notice the sensations – the sense of touch – in the soles of your feet on the floor.

- To better feel sensation in the soles of the feet, try gently rocking forward and backward on your feet, and side to side. Try making little circles with your knees, feeling the changing sensations in the soles of your feet.
- When the mind has wandered, just feel the soles of your feet again.
- Now begin to walk, slowly, noticing the changing sensations in the soles of your feet. Notice the sensation of lifting a foot, stepping forward, and then placing the foot on the floor. Now do the same with the other foot. And then one foot after the other.
- As you walk, appreciate how small the surface area of each foot is and how your feet support your entire body. If you wish, allow a moment of gratitude for the hard work that your feet are doing, which we usually take for granted.
- Continue to walk, slowly, feeling the soles of your feet.
- Now return to standing again and expand your awareness to your entire body, letting yourself feel whatever you're feeling and letting yourself be just as you are.

### BRIEF ACTIVITY #1: BRAINSTORM WORK

- Together let's brainstorm some body-related distressing situations in PE class
  - The situations can range from anything you have ever experienced or seen happen.
  - If you do not feel comfortable sharing out loud use the space below to brainstorm.

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### EDUCATION BREAK: SELF-COMPASSION OVERVIEW

- Using the space below, write down any key information points that stand out to you.

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## BRIEF ACTIVITY #2: SELF-COMPASSION MANTRA WORK

- Guiding mantras for the session:
  - “I will listen to my body’s needs,”
  - “My body is allowed to change,”
  - “May I learn to accept myself as I am”
  - “I speak to myself with kindness, and I treat myself with kindness”
- Use the space below to create your own through the session

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**EXERCISE #2: HOW WOULD YOU TREAT A FRIEND?**

- You can visualize through this experience or jot it down as thoughts come to your mind.

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### EXERCISE #3: COMPASSIONATE LETTER TO MYSELF

#### Week 3

The next 10 minutes will be dedicated to writing a letter to yourself from the perspective of your compassionate self.

- i. Think about an issue regarding your body in PE class that has been particularly challenging for you recently. Imagine what it is about this challenge that brings you pain – and think about what emotions this challenge is eliciting.
- ii. Take your pen and paper and then spend some moments engaged with your soothing rhythm breathing.
- iii. Next, move into your compassionate self; remembering you at your best, at your calmest, at your wisest, at your most caring. Imagine yourself as you would





**Questions to think about:**

- *How was that exercise for you? Were you able to imagine a compassionate version of yourself? What did this version look like? What qualities did it possess? How did it feel to accept these qualities?*
- *After writing the letter, you can put it down for a while and then read it later, let the words soothe and comfort you when you need it most*

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**EXERCISE #4: SELF-COMPASSION GROUP LETTER/CONTRACT**

The idea of compassionate letter writing is to help you refocus your thoughts and feelings on being supportive, helpful, and caring of yourself and others. Practicing doing this can help you access an aspect of yourself that can help tone down more negative feelings and thoughts. Writing a letter together can be a great way to be reminded that we are all human, in this PE together. We are here to support, lift up, and embrace our



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## Appendix I: Facilitator Workshop Manual

### **FACILITATOR-Workshop-Manual**

#### **INTRODUCTION: (5-10 mins)**

- a. Facilitator already introduced at initial visit → brief re-introduction
- b. Participants invited to introduce themselves

#### **EXERCISE #1: INFORMAL GROUNDING PRACTICE: Feeling the Soles of Your Feet**

This practice is designed to stabilize and ground you when you are experiencing overwhelming emotions (e.g., anger).

- Stand up and feel the soles of your feet on the floor. This can be done with or without shoes.
- Begin to notice the sensations – the sense of touch – in the soles of your feet on the floor.
- To better feel sensation in the soles of the feet, try gently rocking forward and backward on your feet, and side to side. Try making little circles with your knees, feeling the changing sensations in the soles of your feet.
- When the mind has wandered, just feel the soles of your feet again.

- Now begin to walk, slowly, noticing the changing sensations in the soles of your feet. Notice the sensation of lifting a foot, stepping forward, and then placing the foot on the floor. Now do the same with the other foot. And then one foot after the other.
- As you walk, appreciate how small the surface area of each foot is and how your feet support your entire body. If you wish, allow a moment of gratitude for the hard work that your feet are doing, which we usually take for granted.
- Continue to walk, slowly, feeling the soles of your feet.
- Now return to standing again and expand your awareness to your entire body, letting yourself feel whatever you're feeling and letting yourself be just as you are.

## BRIEF ACTIVITY #1: BRAINSTORM BODY-RELATED DISTRESS IN PHYSICAL EDUCATION CLASS

- Some common situations we have seen in research or even experienced myself through physical education class is:
  - Negative peer evaluations about my body
  - Negative self-evaluations about my body
  - Pressure for our body to conform/look like the fit ideal

## PSYCHOEDUCATION: SELF-COMPASSION OVERVIEW (5 mins)

### c. What is self-compassion (INFORMATION ON PPT)

- i. Compassion: *“a sensitivity to the suffering of self and others, with a deep commitment to try to relieve and prevent it”*
- ii. Self-compassion involves treating yourself the way you would treat a friend who is having a hard time. The more complete definition involves three core elements:
  1. Self-kindness – When we make a mistake or fail in some way, we are more likely to beat ourselves up than put a supportive arm around our own shoulder. Self-kindness counters this tendency so that we are as caring toward ourselves as we are toward others. Rather than being harshly critical when noticing personal shortcomings, we are supportive and encouraging and aim to protect ourselves from harm.
  2. Common humanity – A sense of interconnectedness is central to self-compassion. It's recognizing that all humans are flawed works-in-progress, that everyone fails, makes

mistakes, and experiences hardship in life. Self-compassion honors the unavoidable fact that life entails suffering, for everyone, without exception. When we remember that pain is part of the shared human experience, every moment of suffering is transformed into a moment of connection with others.

3. Mindfulness – Involves being aware of moment-to-moment experiences in a clear and balanced manner. It means being open to the reality of the present moment, allowing all thoughts, emotions, and sensations to enter awareness without resistance or avoidance.
  - iii. Another way to describe the three essential elements of self-compassion is *loving* (self-kindness), *connected* (common humanity), and *presence* (mindfulness). When we are in the mind state of loving, connected presence, our relationship to ourselves, others, and the world is transformed.

**d. How can we apply self-compassion to physical education and physical activity?**

- i. The development of self-compassion might facilitate adherence to physical activity programs and sport
- ii. Explore the true meaning of suffering and understand that suffering is a part of life
- iii. Acceptance for “who I am”

**BRIEF ACTIVITY #2: SELF-COMPASSION MANTRAS/AFFIRMATIONS (5 mins)**

→ known for relieving stress and calming the mind, repeating a mantra to yourself for a few minutes each day is a form of self-compassion/care on its own

→ Guiding ones for session:

- “I will listen to my body’s needs,”
- “My body is allowed to change,”
- “May I learn to accept myself as I am”
- “I speak to myself with kindness, and I treat myself with kindness”

→ they can make their own and write it on paper Infront of them

**EXERCISE #2: SKILLS PRACTICE: How Would You Treat A Friend?**



- First gently close your eyes.
  - Take a moment to think about a time when a peer or friend or someone you care for has felt really badly about their body. How would you respond to this person in this situation (especially when you're at your best)? Note what you would say to this person and notice the tone in which you may typically talk to this friend or person you care for during this difficult time for them. What are some of the things you may say to this loved one?
  - **Now gently open your eyes and return your attention back to the room. Would you like to share the way you responded to your loved one who was in pain?**
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- Now close your eyes again. And think about a time when you have felt bad about your body. How do you typically respond to yourself in these situations? Note what you typically do, what you say, and note the tone in which you talk to yourself.
  - Did you notice a difference? If so, ask yourself why. What factors or fears come into play that lead you to treat yourself and others so differently?
  - Perhaps consider how things might change if you responded to yourself in the same way you typically respond to a close friend when you're suffering.
  - Now gently open your eyes and return your attention back to the room. **Would you like to share your experience with the second part of this exercise?**
- 
- Next, let's put this into practice. Think of a a specific body-related distressing experience that has occurred in physical education class recently, or over the past year. Call the situation to mind and see if you can actually feel the stress and emotional discomfort in your body.
  - Now say to yourself, "This is a moment of suffering." This acknowledgment is a form of mindfulness—of simply noticing what is going on for you emotionally in the present moment, without judging that experience as good or bad. You can also say to yourself, "This hurts," or, "This is stress." Use whatever statement feels most natural to you.
  - Next, say to yourself, "Suffering is a part of life." This is a recognition of your common humanity with others—that all people have trying experiences, and these experiences give you something in common with the rest of humanity rather than mark you as abnormal or deficient. Other options for this statement include "Other people feel this way," "I'm not alone," or "We all struggle in our lives."
  - Now, put your hands over your heart, feel the warmth of your hands and the gentle touch on your chest, and say, "May I be kind to myself." This is a way to express self-kindness. You can also consider whether there is another specific phrase that would speak to you in that particular situation. Some examples: "May I give myself the compassion that I need," "May I accept myself as I am," "May I learn to accept myself as I am," "May I forgive myself" **[Insert compassionate comments generated in previous exercise]**
  - Now experience how your body feels in response to this exercise. In this practice you have embodied right now, remind yourself that you can use this again at any time of day or night. The more you practice mentally saying these kind and

compassionate phrases, the more helpful and easier it will become to embody them when you need it most.

- Now take a deep breath in and exhale out. Gently open your eyes and bring your attention back to the room.

### DISCUSSION:

- *What was activity like? How did it feel?*
- *What parts were helpful? Unhelpful?*
- *How might this be useful?*

## EXERCISE #3: COMPASSIONATE LETTER TO MYSELF

Take 10 minutes and practice writing a letter to yourself from the perspective of your compassionate self.

- vi. Think about an issue regarding your body in physical education class that has been particularly challenging for you recently. Imagine what it is about this challenge that brings you pain – and think about what emotions this challenge is eliciting.
- vii. Take your pen and paper and then spend some moments engaged with listening to your breath.
- viii. Next, move into your compassionate self; remembering you at your best, at your calmest, at your wisest, at your most caring. Imagine yourself as you would ideally like to be in terms of being mature and powerfully compassionate. Now try to feel your compassionate self. This is the part of you that will write the letter.
- ix. What would your compassionate self say about your challenge, from the perspective of unlimited compassion? How would your compassionate self-convey these feelings for you, especially for the pain you feel when you judge yourself harshly?
- x. What would this compassionate self-write in order to remind you that you are only human, that all people have both strengths and weaknesses?
- xi. As you write to yourself from the perspective of this imaginary friend, try to infuse your letter with a strong sense of his/her acceptance, kindness, caring, and desire for your health and happiness.

### DISCUSSION

- *How was that exercise for you? Were you able to imagine a compassionate version of yourself? What did this version look like? What qualities did it possess? How did it feel to accept these qualities?*

- *Is there any volunteers that want to read out their letter, or any specific parts you want to share with the group?*
- After writing the letter, you can put it down for a while and then read it later, letter the words soothe and comfort you when you need it most

#### **EXERCISE #4: Self-Compassion Group Letter/ Contract**

**→ Use chart paper to write out letter → can keep in the classroom after**

The idea of compassionate letter writing is to help you refocus your thoughts and feelings on being supportive, helpful, and caring of yourself and others. Practicing doing this can help you access an aspect of yourself that can help tone down more negative feelings and thoughts. Writing a letter together can be a great way to be reminded that we are all human, in this physical education together. We are here to support, lift up, and embrace our bodies together! Let's start this group letter by brainstorming some sentences we want to be reminded of when we walk into the next physical education class. Think of how you have coped through distressing situations in physical education class in the past. Bring these to mind. If there are tendencies to dismiss them, how can we reframe now. Think of ideas in which moving our bodies may promote... or learning new activities and practicing new skills may.... Or how "Gym class might be tough today but what we need to remember is that we are here, we showed up, and we are moving our bodies in a way that is good for us. As a class who have now engaged in a full hour of self-compassionate practices, let's work together to form a group inspiration letter that we can keep up as a reminder that we are all in this together and we can be compassionate towards ourselves during times we may need it most. (Hint :Think of self-compassionate mantras)

#### **Immediately Post Workshop**

- Collect journals if they allow it.
- Hand out end survey.
- Quickly explain what the group feedback session will entail.

## Appendix J: Focus Group Manual

### **FACILITATOR-FocusGroupSession**

- Congratulations on completing the self-compassion workshop!! It is not always easy working on your emotions and learning to compassionately respond to distressing situations especially regarding our bodies. For this debrief session we will start with just going around or you can interchangeably share some open-ended responses and thoughts about the overall workshop. Anything you want to share/discuss or ask! I will set a timer for 10 minutes and I am opening the floor to you all to discuss anything, from your thoughts, to experiences that arose:
  - What did you like?
  - What did you dislike?
  - What did you learn?
  
- **After taking this workshop, what do you think about self-compassion?**
  - Did anything change about how you see self-compassion?
  - What does it mean to be compassionate to oneself?
  - How may compassion help in the process of dealing with body image distress?
  - How may compassion be difficult in the process of becoming more involved in physical education or physical activity more generally?
  - Tell me some examples of how you practice compassion for yourself or have seen others do.
  
- **How much more knowledge or understanding have you gained from the workshop in comparison to before you started?**
  
- **After brainstorming some body-related distressing situations during the workshop that you have seen or experienced during gym class?**
  - Do you think they vary depending on the type of physical education class?
  - Do they vary on the age or person running the class?

- Does the atmosphere affect anything?
- Any differences with co-ed vs just girls?
  
- **Which self-compassion exercise do you think will be the most effective for yourself next time you encounter a distressing physical education situation? And why?**
  - Tell me some examples of how you practice compassion for yourself or have seen others do.
  - Can you see yourself practicing some of these tools in your everyday or in gym class specifically?
  
- **How could this workshop be improved?**
  - At what age do you think this workshop would be beneficial?
  - What suggestions do you have to incorporate into this workshop?
  - Were there any topics you thought should have been covered in the workshop that was not?
  - What can be improved in terms of helping you understand the information?

## Appendix K: Homework Manual

### **PARTICIPANT- Homework Manual**

#### Guidelines:

- Each week will include 1-3 exercises for you to complete at your own pace. There is space dedicated to each activity below each activity directions.
- If you require more space, you can complete the rest of the activity on the blank pages at the end of the workbook.

### **Week 1: Relating to Ourselves and Meditation Work**

A self-compassion mantra to guide you through the week → **“I will listen to my body’s needs”**

#### **Goal for the week:**

- Activity #1 → 2x+
- Activity #2 → 2x+
- Try Box breathing → practice daily →
  - Step 1: Breathe in counting to four slowly. Feel the air enter your lungs.
  - Step 2: Hold your breath for 4 seconds. Try to avoid inhaling or exhaling for 4 seconds.
  - Step 3: Slowly exhale through your mouth for 4 seconds.
  - Step 4: Repeat steps 1 to 3 until you feel re-centered.

**ACTIVITY #1: Relating to Ourselves with Self-Compassion**

- Think about a current body-related struggle you're going through in PE class. For example, maybe you're feeling frightened that if your body doesn't look like others in class, you shy away from certain activity. Or maybe you only feel comfortable wearing certain athleisure clothes because someone has made comments to you about what you should wear when working out or playing sports.
  - Write down the situation.

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- First write down any ways you may be lost in the story line of the situation and running away with it. Is it all you can think about when you exercise, or are you making a bigger deal out of things than is warranted?

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- Now see if you can mindfully acknowledge the pain involved in this situation without exaggerating it or being overly dramatic. Validate the difficulty of the situation, while trying not to get overly caught up in the story line of what you're feeling. For example: *"I'm feeling inadequate about myself for not being stronger after this workout. It's difficult for me to feel this right now."*
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- Next write down any ways you may be feeling isolated by the situation, thinking that it shouldn't have happened, it shouldn't be like this, or that you're the only one who has been in this situation. For example, are you assuming that you should be lifting heavier weights or running faster, and that its abnormal to not be able to do this? That no one else that is in PE class experiences these types of concerns?
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- Now, try to remind yourself of the common humanity of the situation – how normal is it to have feelings like this and the fact that many people are probably experiencing feelings similar to yours. For example: *“I guess it’s natural to feel disheartened. Everyone can feel this way sometimes, and I’m sure many other people have been in a similar situation to what I’m facing right now.”*
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- Next, think of any ways you may be judging yourself for what happened. For example, are you calling yourself names or being overly harsh with yourself?
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- Finally, try writing yourself some words of kindness in response to the difficult emotions that you are feeling. Write using the same type of gentle, supportive words you might use with a good friend you cared about. For example: *“I’m sorry that you’re feeling disheartened right now. I’m here to support you, and I know you did your best.”*
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**Questions to think about:**

- What was this practice like for you? Take a moment and try to fully accept how you're feeling in this moment, allowing yourself to be just as you are.
  - Some people feel soothed and comforted by words of mindfulness, common humanity, and self-kindness when they do this exercise. If it felt supportive for you, can you allow yourself to savor the feeling of caring for yourself in this way?
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**ACTIVITY #2: Loving Kindness Meditation by Kristin Neff**

- [www.self-compassion.org](http://www.self-compassion.org)
  - Practices tab
    - Guided practices link
      - Recommended meditations:
        - Loving-Kindness Meditation (20 mins)
        - Compassionate Body Scan (24 mins)
        - Affectionate Breathing (21 mins)
        - Tender Self-Compassion Break (5 mins)

## Week 2: Using Self-Compassion to Strengthen Your Self Relationship

A self-compassion mantra to guide you through the week → **“My body is allowed to change”**

### Goal for the week:

- Activity #1 → 3x+
- Activity #2 → 3x+
- Incorporate previous week’s activities

### ACTIVITY #1: Self-Compassion Break

- This practice is a way to help remind ourselves to apply the three core components of self-compassion – mindfulness, common humanity, and kindness – when difficulties arise in our lives. It’s important to find language that is effective for you personally – you don’t want to have an internal argument about whether the words make sense. For example, some people prefer the word *struggle* to the word *suffering* or prefer the word *support* or *protect* to the word *kindness*.
- You may want to try this exercise with your eyes closed so you can go inward more deeply.

- Think of a body-related situation in PE that is causing you stress.
  - Visualize the situation clearly in your mind's eye. What is the setting? Who is saying what to whom? What is happening? What *might* happen?
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- Can you feel discomfort in your body as you bring this difficulty to mind? If not, choose a slightly more difficult problem.
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- Now, try saying to yourself: "*This is a moment of suffering.*"
  - That's mindfulness. Perhaps other wording speaks to you better. Some options are:
    - *This hurts.*
    - *Ouch.*
    - *This is stressful.*
- Now, try saying to yourself: "*Suffering is a part of life.*"
  - That's common humanity. Other options include:
    - *I'm not alone.*
    - *Everyone experiences this, just like me.*
    - *This is how it feels when people struggle in this way.*
- Now, offer yourself the gesture of soothing touch. If you feel comfortable, you might want to place one hand over your heart. Or two hands on your belly.
- And try saying to yourself: "*May I be kind to myself*" or "*May I give myself what I need.*"
- Perhaps there are particular words of kindness and support that you need to hear right now in this difficult situation (feel free to write out any additional words of kindness or support that resonate with you). Some options may be:
  - *May I accept myself as I am.*
  - *May I begin to accept myself as I am.*

- *May I forgive myself.*
  - *May I be strong.*
  - *May I be patient.*
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- If you're having difficulty finding the right words, imagine that a dear friend or loved one is having the same problem as you. What would you say to this person? What simple message would you like to deliver to your friend, heart to heart?
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- Now see if you can offer the same message to yourself.
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**Questions to think about:**

- Take a moment to reflect on how the experience of this exercise was for you. Did you notice anything after you evoked mindfulness with the first phrase “This is a moment of suffering”?

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- How about the second phrase, reminding you of common humanity, or the third, which invited self-kindness?

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- Were you able to find kind-hearted words you would say to a friend, and if so, what was it like to say the words to yourself? Easy? More difficult?

Sometimes it takes a bit of time to find language that works for you personally and feels authentic. Allow yourself to be a slow learner – eventually you will find the right words.

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## **ACTIVITY #2: What Aspects of Self-Compassion Do You Need Now?**

- Self-compassion probably has more different aspect than you originally thought. Consider the following *yin* and *yang* attributes of self-compassion. Consider which attributes you might need to draw on the most right now:
    - 1) **Comforting**: Something that we might do for a dear friend who is struggling. It refers to helping a suffering person feel better, especially by providing support for his *emotional* needs.
    - 2) **Soothing**: Soothing is also a way to help a person feel better, and it refers particularly to helping a person feel *physically* calmer.
    - 3) **Validating**: We can also help a person feel better by understanding very clearly what she is going through and saying it in a kind and tender way.
    - 4) **Protecting**: The first step toward self-compassion is feeling safe from harm. Protecting means saying no to others who are hurting us or to the harm we inflict on ourselves, even in unconscious ways.
    - 5) **Providing**: Providing means giving ourselves what we really need.
    - 6) **Motivating**: Self-compassion motivates like a good coach with kindness, support and understanding, not harsh criticism.
      - *What aspects of self-compassion do you need now?*
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- *Do you feel it would help to learn how to comfort yourself more when you are working out? Would you like to feel more comfortable and relaxed in your body?*
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- *Do you feel alone and need this kind of validation? Do you think it would help to learn to validate your own feelings?*
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- *Would you like to learn to provide for your own needs more effectively?*



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- *Do you think it would be helpful to learn to motivate yourself with love instead of fear?*
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**Questions to think about:**

- Hopefully, the question “What do I need now?” will arise in your mind continuously throughout this month. By simply asking the question, you allow yourself a moment of self-compassion, even if you can’t find an answer or don’t have the ability to meet your needs at the time.

## Week 3: Finding Your Compassionate Voice in Physical Education Class

### Week 3

A self-compassion mantra to guide you through the week → **“May I learn to accept myself as I am”**

#### Goal for the week:

- Activity #1 → every PE class this week
- Activity #2 → 3x+
- Incorporate previous week’s activities

\*Over the next week, try to log one daily body-related challenge related to adhering to any body-related distress in PE. In response, try to understand and validate your experience (i.e., acknowledge that it makes sense that you are experiencing these challenges), and try to respond in compassionate ways through both what you say to yourself and what you do. → Use the below exercises to help guide you through this challenge\*

### **ACTIVITY #1: SELF-COMPASSION MEDITATION DURING PHYSICAL EDUCATION CLASS**

- While participating in different exercises throughout PE class this week, create mindful moments when you are experiencing discomfort, unable to continue, or find something distressing (feel free to use the space below to create your own mindful moment phrases that resonate with you).
  - *May I be free from suffering and pain. May I have joy and happiness, not only today but every day from now on. May I accept and respect the physical limitations of my body. May I safely endure the pain and*

*discomfort that I experience during this exercise session. May I be strong. May I learn to protect myself against injuries and accidents.*

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### **ACTIVITY #2: Finding Your Compassionate Voice**

- This exercise will help you hear the critical voice inside, discover how your inner critic may be trying to help you, and learn to motivate yourself with a new voice – that of your inner compassionate self.
  - Sometimes the inner critic does not appear to have our best interest in mind. This can especially be true if our inner critic is the internalized voice of someone from our past who was abusive. Please be compassionate with yourself as you do this exercise. If you find yourself getting into uncomfortable territory, let it go and return to it only when you feel strong and ready.
  - *In the space provided, write down a behaviour that you would like to change – something you often beat yourself up about. Choose a behaviour that is unhelpful to you and is causing you unhappiness, but for this exercise self a behaviour in the mild to moderate range of difficulty. Also, pick a behaviour that is potentially changeable. Examples are “I don’t exercise enough”, “I don’t fuel my body enough”, “I’m hard on my body”.*
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- *Write down what you typically say to yourself when you engage in this behaviour. Sometimes the inner critic is harsh, but sometimes it manifests more as a discouraged feeling or in some other way.*
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- *What words does it use, and importantly, what tone does it use? Or perhaps there are no words at all, but an image. How does your inner critic express itself?*
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- *Now, take a moment to notice how it feels when you criticize yourself. Consider how much distress the voice of self-criticism has caused you. If you wish, try giving yourself compassion for how hard it is to hear such harsh language, perhaps by validating the pain: “This is hard.” “I’m so sorry, I know how much it hurts to hear this.”*
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- *Reflect for a moment on why the criticism has gone on for so long. Is your inner critic trying to protect you in some way, to keep you safe from danger, to help you, even if the result has been unproductive? If so, write down what you think might be motivating your inner critic.*
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- *If you can’t find any way that your critical voice is trying to help you – sometimes self-criticism has no redeeming value whatsoever – please don’t go further and simply continue to give yourself compassion for how you’ve suffered from it in the past.*
- *If you did identify some way your inner critic might be trying to help you or keep you safe, however, see if you can acknowledge its efforts, perhaps even*

*writing down a few words of thanks. Let your inner critic know that even though it may not be serving you very well now, its intention was good, and it was doing its best.*

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- *Now that your self-critical voice has been heard, see if you can make some space for another voice – your inner compassionate voice. This comes from a part of yourself that is very wise and recognizes how this behaviour is causing you harm. It also wants you to change, but for very different reasons.*
  - *Put your hands over your heart or another soothing place, feeling their warm. Now reflect again on the behaviour you're struggling with. Begin to repeat the following phrases that capture the essence of your inner compassionate voice: "I love you and I don't want you to suffer." Or if it feels more authentic, say something like "I deeply care about you, and that's why I'd like to help you make a change." Or, "I'm here for you and will support you."*
  - *When you're ready, begin to write a message to yourself in the voice of your inner compassionate self. Write freely and spontaneously, addressing the behaviour you would like to change.*
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- *What emerges from the deep feeling and wish “I love you and don’t want you to suffer”?*

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- *What do you need to hear to make a change? Or if it’s a struggle to find words, try writing down the words that would flow from your loving heart when speaking to a dear friend who was struggling with the same issue as you.*

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**Questions to think about:**

- *What was that exercise like for you? Could you identify the voice of inner criticism?*

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- *Did you find any way your critical voice was trying to help you?*

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- *Did it make sense to thank your inner critic for its efforts?*

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- If you found some words that came from your inner compassionate self, let yourself savor the feeling of being supported.
  - If you had difficulty finding words of kindness, that's okay too. It takes some time. The important thing is that we set our intention to be more self-compassionate, and eventually new habits will form.



## Week 4: Compassionate Self

A self-compassion mantra to guide you through the week → **“I speak to myself with kindness, and I treat myself with kindness”**

### Goal for the week:

- Activity #1 → 1x+
- Activity #2 → 1x+
- Incorporate previous week’s activities

### **ACTIVITY #1: Cultivating Joy Practice**

Arrange yourself in a comfortable posture. You can have your eyes open or closed, whichever feels more comfortable.

- Bring your attention to the sensation of your breath as it comes in and goes out of your body. See if you can follow this sensation from the beginning of your in breath until the end of your out breath.
  - (Practice for 3-5 breaths.)
- Allow yourself to enjoy the sensation of your breath, recognizing that it is a pleasant sensation. Give yourself permission to do nothing but enjoy the sensation of your breath, right in this moment. You have nothing else to do, and nowhere else to go – right now. With a spirit of generosity toward yourself, enjoy the sensation of your breath.
  - (Practice for 5-10 breaths.)
- As you breathe, feel the energy of life within you. You are alive in this moment, and this is a precious gift. Give yourself permission to feel truly alive right now. With each breath, feel the energy of life within you. Every minute of life is incredibly precious. Allow yourself to feel the joy of being alive as you breathe.
  - (Practice 5-10 breaths.)
- Now image that you only had 5 minutes left to live – take a moment for that to feel real. Then someone comes into your room and says they could give you another 24 hours to be alive. It would be such a miracle. In reality, you do have 24 hours to be

alive, and it is a precious miracle. As you breathe, let yourself appreciate each moment of being alive.

- (Practice for 5-10 breaths.)
- Now becoming aware of all the parts of your body that are healthy and functioning. We all have parts that hurt or don't function the way we'd like, but there is more to life than just that. There are also parts of your body that are healthy, and it would be deeply unfortunate to ignore the conditions for happiness that are available to you right now.
- Can your eyes see the blue sky? Can your tongue taste warm tea? Can your body feel the embrace of your loved ones? In every moment there are infinite reasons to suffer and infinite reasons to be happy.
- Right now, we are dedicating ourselves to paying attention to what is good in life. As you breathe, allow your mind to recollect the miracles of life.
  - (Practice for 5-10 breaths.)
- Now we let go of whatever is preventing us from being fully present in this moment of life. We let go of all of our projects and busyness.
- Even if these projects are never completed, happiness is still possible. We let go of the past and the future, because we know life is only available in this moment.
- Feeling fully present, having let go of any burdens, and aware of the miracles of life, you calmly breathe in and breathe out.
  - (Practice for 5-10 breaths)

**Questions to think about:**

- *What do you notice about the sensations in your body? Do you notice any tension, relaxation, warmth, openness, or other sensations?*

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- *Through this practice, are you able to generate happiness and well-being in your body? Are the sensations you feel at the end of the practice generally positive?*
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### **ACTIVITY #2: Compassionate Self Imagery**

- Sit in a comfortable posture with your feet flat on the floor beneath you.
- Take a slow deep soothing breath and repeat. Notice the feeling of your body slowing down.
- Relax your facial muscles starting with your forehead, cheeks, and letting your jaw drop slightly. Then allow your mouth to turn upwards to a slight smile, until you feel it is comfortable – a warm friendly smile.
- As we go through this exercise, you may find your mind wandering. Do not worry about that, just notice it and kindly and gently bring it back.
- Our compassionate self is a part of ourselves that has the qualities of a deeply compassionate person. It does not matter if you think you are not or not.
- The most important thing is to imagine what these qualities are, and that you possess them.
- Now imagine this person – this other version of you – sitting in a chair across from you.
- Imagine them looking warmly at you with a soothing and kind smile.

- Recall what this version of yourself looks like? Imagine those characteristics.
- What qualities would this version of yourself possess? Imagine these qualities.
- **Now think about a body-related issue that has been particularly challenging for you recently. Imagine what it is about this challenge that brings you pain – and think about what emotions this challenge is eliciting.**
- Next, move into your compassionate self; remembering you at your best, at your calmest, at your wisest, at your most caring. Imagine yourself as you would ideally like to be in terms of being mature and powerfully compassionate. Now try to feel your compassionate self.
- What would your compassionate self say about your challenge, from the perspective of unlimited compassion? How would your compassionate self convey these feelings for you, especially for the pain you feel when you judge yourself harshly?

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- What would this compassionate self say in order to remind you that you are only human, that all people have both strengths and weaknesses?

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- How would this version of yourself speak in a compassionate way? Imagine this person comforting you and soothing you right now. Imagine how it would feel to receive that compassion, kindness, and warmth from the version of yourself sitting across the chair.
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- Allow that image of yourself to convey a sense of understanding for you, for your struggles and your feelings... Allow the image to show you kindness, care and concern for your well-being... Allow the image to be strong and wise as it supports you... Allow that image that is completely accepting of you just as you are...
- See if you can spend some moments receiving the compassionate kindness that is being directed towards you
- As you develop your practice, imagine this version of you as always being present. As you activate your compassionate mind, you will have a sense of the kind of self you think embodies compassion.
- Now that you have dedicated some time to embodying your compassionate self, bring your awareness back to your body in the present moment. Thank yourself for taking the time to participate in this exercise at whatever stage or capacity you were able to do so.
- Feel your feet on the ground, your body on the chair

### **CONGRATULATIONS!!**

You just finished a month of focusing on your compassionate self!! It is not always easy slowing down our day to bring our focus inward. However, when we take time to ground ourselves and practice compassion, we will start to begin to become more compassionate to ourselves!

Although this study is finished, I encourage you to use the exercises that resonated with you on the daily.

**“You have peace,” the old woman said, “when you make it with yourself!”**

## Curriculum Vitae

**Name:** Vanessa Coulbeck

**Post-secondary Education and Degrees:** Western University  
London, Ontario, Canada  
2017-2021 B.A. Honours Kinesiology

Western University  
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**Honours and Awards:** Province of Ontario Graduate Scholarship  
2021-2022, 2022-2023

Canadian Graduate Scholarship  
Social Sciences and Humanities Research Council  
2022-2023

Mitacs Accelerate Fellowship  
Canadian Centre for Ethics in Sport  
2022

Kinesiology Conference Travel Award  
2022

Exercise and Nutrition Fellowship  
Western University  
2021

Western University Scholarship  
2021

Undergraduate Student Research Internship Award  
Western University  
2020, 2021

**Related Work Experience** Teaching Assistant  
Western University  
2021-2023

Research Assistant

Western University  
2021-2023

**Academic Conferences and Presentations:**

Western University Wellness Week  
Self-Compassion: The science behind being kind to yourself  
Workshop Presentation  
Online - 2022

North American Society for Psychology of Sport and Physical Activity  
Oral Presentation: Feasibility and acceptability of a peer- led group-based virtual exercise and psychoeducation program for university students with depression.  
Kailua Kona, Hawaii - 2022

European Federation of Sport Psychology  
Oral Presentation: Weight Stigmatizing Experiences in Adolescent Female Athletes and Non-athletes  
Padua, Italy - 2022

Athletes Embodied x National Eating Disorder Information Centre x Western University x University of Toronto  
Webinar Presentation: Fostering positive body image and preventing disordered eating in youth sport  
Online - 2021