# How can we help you? A global investigation into girls' body image experiences in sport and intervention preferences

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A R T I C L E   I N F O

A B S T R A C T

Existing interventions that target the intersection of girls' body image and sports participation are marginally effective, which is, in part, due to methodological limitations pertaining to intervention development (i.e., not theoretically or stakeholder informed). In this research, girls were consulted on their positive and negative body image experiences in sport and their preferences for fostering and remedying these experiences, respectively, in a new intervention. One-hundred and two girls (11–17-years; $n = 91$) and youth advisory board members (18–35-years; $n = 15$) from 13 countries participated in semi-structured focus groups and/or surveys. Template analysis of focus group and survey data resulted in 10 first-level themes and three integrative themes, which highlighted factors that both hinder and help girls' body image while playing sport, as well as girls' intervention preferences and cross-national considerations that will eventually impact the adaptation, localisation, and scaling of the intervention. Overall, girls favoured a girl and woman-only, multimodal intervention that upskilled them in appreciating their bodies, while challenging others' harmful behaviours. Stakeholder insights are crucial in creating acceptable, effective, and scalable interventions. Insights from this consultation phase will inform the development of a new scalable, evidence- and stakeholder-informed intervention that aims to foster girls' positive body image and sports enjoyment.

## 1. Introduction

Currently, 85% of girls worldwide do not meet the World Health Organisation's recommended guidelines for daily movement (Guthold et al., 2020). This is, in part, due to the prejudice and discrimination that girls face broadly within society, including harmful gender norms and stereotypes (Guthold et al., 2018, 2020). If given the opportunity to play sports, girls face unique body image challenges that impede their participation and enjoyment, relative to their male peers. Specifically, their sport experience is hindered, if not halted, by the promotion of harmful gender stereotypes, unrealistic appearance and athletic ideals, the sexual objectification of female athletes' bodies, and the vilification of girls' physical competence, relative to boys (e.g., Daniels et al., 2020; Koulanova et al., 2021; Murray et al., 2021; Slater & Tiggemann, 2011; Vani et al., 2021). This relentless evaluation of female bodies can lead to appearance preoccupation, surveillance, and dissatisfaction among girls (Daniels et al., 2020), which in turn can diminish their concentration, performance, and enjoyment of sports (Cox et al., 2020; Steinfeldt et al., 2013). Lastly, these negative sport experiences are further compounded by coaches and sports communities being ill-equipped to deal with these matters (Sabiston et al., 2020). A potential avenue for addressing these sociocultural pressures and helping girls to feel more comfortable and confident in their bodies while participating in sport, is through the application of positive body image and embodiment principles to sport-specific settings and scenarios. Through this approach, girls can develop a deeper appreciation for what their body can do and experience in sport,

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beyond what it looks like (Menzel & Levine, 2011; Piran & Teall, 2012; 2015; Tylka & Wood-Barcalow, 2015).

To our knowledge, there is no scalable, evidence-based, stakeholder-informed intervention that seeks to address the above-mentioned sociocultural pressures, while fostering positive body image and sports enjoyment among girls; neither is there an evidence-based intervention that upskills coaches and sport communities on this topic. The current research is part of a larger project that will utilise an international multi-disciplinary partnership between girls, coaches, academics, and community and industry partners to co-create interventions that address this gap in service provision. This new initiative, *Body Confident Sport*, will comprise two new interventions that aim to upskill girls (*Body Confident Athletes; BCA*) and coaches (*Body Confident Coaching*; Schneider et al., 2023) in creating safe and inclusive sport environments that foster positive body image and sports enjoyment among girls. This paper reports on one aspect of the co-creation process for *BCA*, whereby girls were consulted on their body image experiences, both positive and negative, in sporting contexts, as well as their preferences for how to foster and remedy these experiences in a new intervention. Insights from this research phase will be coupled with existing literature into girls' body image and sport experiences, as well as other key stakeholder insights, and used to inform an initial prototype of *BCA*.

*1.1. Body image and movement-based interventions among girls*

To date, numerous approaches have been developed (e.g., *Healthy Body Image*; Sundgot-Borgen et al., 2019, 2020) and/or selected (i.e., yoga; Halliwell et al., 2018) to address the intersection between girls' body image and movement experiences (i.e., physical activity, exercise, and sport). These include movement-based interventions that aim to improve body image (and sometimes movement outcomes; Halliwell et al., 2018), as well as body image-based interventions that target movement (and sometimes body image outcomes; Sundgot-Borgen et al., 2019, 2020). In a recent systematic review and meta-analysis, however, this group of interventions was shown to be marginally effective at improving girls' body image, and ineffective at improving movement-related outcomes (Matheson et al., under review). The authors attribute these marginal and null effects to several conceptual and methodological limitations within and across the included studies, and the literature more broadly.

First, a majority of the studies used movement-based interventions to improve girls' body image ($k = 10$ out of 12), which was typically conceptualised as appearance or body (dis)satisfaction. Further, while almost half of the included studies stated that the intervention was informed by a theoretical framework ($k = 9$ out of 12; e.g., Embodiment Theory [Piran & Teall, 2012], Exercise and Self-Esteem Model [Sonstroem & Morgan, 1989]), very few studies described, and none tested for, intervention fidelity (Owen et al., 2017). That is, how will participating in a particular intervention lead to improvements in girls' body image and/or movement outcomes. Next, a majority of the studies were deemed 'medium' to 'high' risk of bias ($k = 9$ out of 12); thus, suggesting that the observed effects, however small, were likely exacerbated. Lastly, studies did not report on stakeholder involvement in the development and/or selection of an intervention approach; thus, limiting our understanding of the interventions' feasibility, including acceptability among the target population and the integration of an approach beyond a research setting (Bowen et al., 2009). Collectively, these conceptual and methodological limitations have implications for intervention effectiveness and the sustainability of broader dissemination and implementation plans.

With respect to theoretical frameworks and outcome measures, using movement as a means for improving girls' appearance

or body satisfaction, without a theoretical explanation is potentially problematic. It is proposed that the impact of movement on satisfaction is mediated by perceived and/or objective changes to participants' appearance (e.g., weight loss, increased muscle tone; Ginis et al., 2012). Therefore, satisfaction is reliant on participants maintaining an intervention regime that sustains these perceived and/or objective changes to their appearance. What is more, engaging in movement for appearance-related reasons increases an individuals' risk of developing low self-esteem, low mood, and eating disorders, whereas those motivated by enjoyment and health-related reasons are at reduced risk (DiBartolo et al., 2007; Gonçalves & Gomes, 2012; Homan & Tylka, 2014; Hurst et al., 2017; Mond et al., 2006). In light of this, the body image field has urged researchers when developing and/or selecting intervention approaches to adopt theoretical principles that help individuals to develop a deeper and more holistic relationship with their body, beyond simply being satisfied with how it looks (e.g., positive body image and embodiment theories; Alleva et al., 2023; Menzel & Levine, 2011; Piran & Teall, 2012; 2015; Tylka & Wood-Barcalow, 2015).

This has, to a small degree, been conducted with girls, through yoga in the United Kingdom (Halliwell et al., 2018) and a multi-component school-based programme in Norway (*Healthy Body Image*; Sundgot-Borgen et al., 2019, 2020). Yoga proved equally effective as physical education at improving girls' positive and negative body image and mood; however, movement-based outcomes were not assessed. Meanwhile, Sundgot-Borgen and colleagues (2019, 2020) found improvements in girls' positive body image following three 90-minute workshops that addressed negative and positive body image (workshop one), media literacy (workshop two), and healthy lifestyles (workshop three); however, there was no impact on movement outcomes. While these two approaches may demonstrate effective positive body image interventions, preliminary evidence suggests that they do not address the bidirectional and reciprocal relationship between body image and movement (e.g., simultaneously improving girls' body image and movement experiences reduces their likelihood of being inactive and/or dropping out; Sabiston et al., 2019). In the case of Sundgot-Borgen and colleagues (2019, 2020), a possible explanation for the null effects on movement levels (i.e., minutes per week), may be the disconnect between intervention content and its relevance to movement settings and scenarios. For instance, content addressed positive body image concepts (e.g., How can changing from an aesthetic to a functional focus improve body experiences and healthy lifestyles?), but did not specifically apply these to movement contexts (e.g., What is my body able to do and experience when playing sport, and why is this important?).

With respect to stakeholder input, a majority of previous intervention studies did not seek girls' and/or other key stakeholders' input during the development and/or selection of an intervention approach. Community-based participatory research (CBPR; Collins et al., 2019), a common form of stakeholder involvement, is a key component of intervention development and is now recommended, if not mandatory, in some peer-reviewed communities (e.g., journal submission requirements; O'Cathain et al., 2019a, b). When incorporated into intervention development frameworks (O'Cathain et al., 2019a, b), CBPR allows researchers to gain incremental feedback from key stakeholders about the relevance, suitability, and acceptability of an approach; thus, increasing the likelihood of producing an effective and sustainable intervention that meets the needs of the target population, as well as those responsible for dissemination and implementation. Further, depending on the aims and scope of CBPR, researchers can gain insights from different communities and contexts, which can increase the ease with which an approach can be adapted and scaled up.

## 1.2. The present study

To our knowledge, there is limited qualitative research into girls' positive and negative body image experiences in sport (Sabiston et al., 2019; Vani et al., 2021), and even less research into their preferences for how to foster and remedy these experiences within intervention efforts, respectively. This research project aims to build on previous research, by developing a new intervention that is: 1) guided by evidence-based frameworks for developing interventions; 2) underpinned by theoretical frameworks for body image and movement; 3) informed by stakeholder needs and preferences; and 4) relevant to sport settings and scenarios. Intervention development will be guided by the principles and processes for developing complex health interventions (O'Cathain et al., 2019a, b), whereby initial steps involve consulting the target population about their experiences with the given issue, and their preferences for addressing this within an intervention. Therefore, girls aged 11–17 years were consulted through semi-structured focus groups and mixed method surveys on their positive and negative body image experiences in sport, and their preferences for addressing these experiences within a new intervention. This paper pertains to the initial development phase of *BCA* and will report on the findings from the focus groups and mixed method surveys, as well as how these results will be coupled with existing literature (e.g., mechanisms for change, efficacy of existing interventions; [Matheson et al., under review]), along with insights from other key stakeholders, to inform an initial intervention prototype.

## 2. Method

### 2.1. Design

A mixed method, community-based participatory approach was utilised (O'Cathain et al., 2019a, b). This included using a combination of semi-structured focus groups and a mixed method survey to gain insights from girls, as well as adopting a cross-national lens during data collection. The activities and questions in the focus group and mixed method survey were informed by a priori research questions and themes (see Table 1) derived from existing literature into body image and sport. Specifically, drawing on sociocultural perspectives (Keery et al., 2004; LaVoi, 2018; Menzel & Levine, 2011; Petrie & Greenleaf, 2012a; Piran & Teall, 2012; 2015; Tylka & Wood-Barcalow, 2015), the focus groups and mixed method surveys aimed to identify key features within girls' environments that both hindered and helped them to feel more comfortable and confident in

**Table 1**
A Priori Research Themes from the Existing Evidence Base on Body Image and Sport among Girls.

| Theme | Theme Description |
| --- | --- |
| 1 | What biopsychosocial factors are associated with girls' negative body image and sport experiences (e.g., Daniels et al., 2020; Keery et al., 2004; Koulanova et al., 2021 Petrie & Greenleaf, 2012)? <br> • Gender stereotypes and appearance/athletic ideals <br> • Ill-fitting and objectifying uniform options <br> • Attitudes and behaviours of teammates and coaches |
| 2 | What biopsychosocial factors are associated with girls' positive body image and sport experiences (e.g., Menzel & Levine, 2011; Piran, 2012, 2015; Tylka & Wood-Barcalow, 2015)? <br> • Inclusive and diverse representation of girls and women in sport <br> • Clothing options for all body types <br> • Use of positive body image principles by teammates and coaches (e.g., body appreciation, acceptance, and functionality) |
| 3 | What body image experiences are shaped by country and culture (e.g., Piran, 2012; Swami, 2015)? <br> • Cultural norms (e.g., gender roles) <br> • Individual vs. collectivist communities <br> • Religious beliefs and practices |

their bodies while playing sport, with the aim of addressing these risk and protective factors within the intervention. Further, to allow for the adaptation, localisation, and scaling of the new intervention, a cross-national perspective was adopted throughout intervention development. Therefore, in the current development phase, insights were obtained from participants living in 13 countries.

Stakeholder input was obtained from Australia, Canada, France, India, Japan, Malaysia, Mexico, South Africa, Togo, Taiwan, the United Kingdom (UK), the United States of America (US), and Zimbabwe. First, 14 semi-structured focus groups were conducted with girls aged 11–17 years in France, India, Japan, Mexico, the UK, and the US. These six countries were selected for focus groups based on academic, industry, and community insights. Specifically, these countries are largely populated with a high prevalence of body image concerns among girls, and they have well-established grassroots sport organisations for girls (e.g., Bornioli et al., 2019 [UK]; Ganesan et al., 2018 [India]; Gordon, 2001 [Japan]; Peña et al., 2019 [Mexico]; Valls et al., 2013 [France]; Wang et al., 2019 [US]). Two focus groups were conducted in each country (one with 11–14-year-olds; one with 15–17-year-olds), with the exception of the US, where four groups were conducted (two with 11–14-year-olds; two with 15–17-year-olds) as initial testing and dissemination of the new interventions will begin in the US.

Focus groups were held separately for girls aged 11–14 and 15–17 years due to developmental differences, and the potential impact on group dynamics and discussion. Moreover, to increase girls' comfort levels, the focus groups comprised girls who were members of the same sports team or organisation. Following the focus groups, girls were invited to complete a survey consisting of qualitative and quantitative questions pertaining to body image and sport, and additional interventions preferences (e.g., number of sessions; session length). Focus groups and the mixed method surveys were supplemented with qualitative responses from a youth advisory board of one of the industry partners, which is composed of over 20 young leaders aged 18–35 years from five continents. The youth board is a voluntary initiative and helps shape the social mission of the affiliated industry partner. Specifically, young leaders can opt in to provide real-world experience and insights into key trends and issues within their countries. In this instance, members provided insights into girls' body image and sport experiences within their respective countries; thus, further broadening the cross-national lens of this research.

### 2.2. Participants

In total, 102 participants provided insights into girls' body image and sport experiences. The focus groups comprised 91 girls aged 11-17 years from six countries, of which 80 completed the follow-up survey: France (Lyon *n* = 2; Paris *n* = 1), India (Delhi *n* = 13; Hinganghat *n* = 1; Nagpur *n* = 2), Japan (Tokyo *n* = 13), Mexico (Mexico City *n* = 11), the UK (London *n* = 11), and the US (Los Angeles *n* = 13; New Orleans *n* = 13). Eleven women aged 18–35 years from the youth advisory board completed the qualitative surveys from nine countries: Australia (*n* = 2), Canada (*n* = 2), Malaysia (*n* = 1), South Africa (*n* = 1), Taiwan (*n* = 1), Togo (*n* = 1), the UK (*n* = 1), the US (*n* = 1), and Zimbabwe (*n* = 1).

To increase intervention scalability (e.g., a universal, rather than selective intervention; Wade & Wilksch, 2018), the eligibility criteria allowed for different sport types (e.g., individual [swimming], team [volleyball], aesthetic [gymnastics], and non-aesthetic [soccer]) and competition level (e.g., recreational and competitive). Girls represented dancing, boxing, netball, rugby, rhythmic gymnastics, soccer, surfing, and taekwondo. Of those who provided demographic data (*n* = 80), girls in the focus groups were on average 14.59 years old (11–18 years; *SD* = 1.90) and had been playing sport for 5.58 years (*SD* = 3.24).

## 2.3. Procedure and materials

Following ethics approval from local universities, informed consent and assent was obtained from parents and girls, respectively. As the target age of participants was 11–17 years, parental consent was required for all girls to take part in the focus groups. Prior to the focus groups, a representative from the sport organisations completed a checklist to ensure appropriate safeguarding policies were established and implemented, and key logistical features were addressed (e.g., girls had access to a digital device; identified preferred conference call platform). Focus groups were conducted with 4–8 girls and an observing representative from their organisation (e.g., a coach), and in one of two formats: girls and the representative dialled into a conference call from the same physical location (e.g., dance studio) or all participants dialled in from individual locations (e.g., their home or office).

Each focus group was co-facilitated by local researchers who had experience and expertise in conducting focus groups, working with young people, and body image and/or sport psychology, and who spoke the primary language of the respective country. Focus groups were audio-recorded ($M = 1$ h 41 min; $Min = 60$ min; $Max = 3$ h 17 min), and were transcribed verbatim by transcribers fluent in the spoken language. Where segments were inaudible (e.g., in the France and India focus groups), co-facilitators were consulted to help decipher the context of the discussion, and the meaning of a potential quote.

Immediately following the focus groups, girls were invited to complete an online survey which addressed more in-depth questions about their body image experiences in sport and intervention preferences. Girls were asked to complete the survey within one week of the focus groups. Simultaneously, youth advisory board members were invited to complete an online qualitative survey that explored girls' body image and sport experiences in their respective country. For their participation, participants received an electronic gift card in their local currency, equivalent to .£ 50.

### 2.3.1. Focus group facilitator guide

The facilitator guide was co-developed by the authors, a local researcher from each focus group country, and the community and industry partners. The guide included an overview of the research rationale and aims, instructions for delivering the focus group activities, and guidance on working with adolescents in online settings. The local researchers reviewed the guides for cultural and linguistic accuracy, as well as attended a training session led by the first and second authors on delivery. The guides were translated into French, Hindi, Japanese, and Spanish.

### 2.3.2. Information and pre-work booklet

One week prior to the focus groups, girls received an information booklet that provided an overview of the focus group aims and objectives, key definitions (e.g., what is body image?), a participant assent form, and two activities for completion ahead of the focus group. The pre-discussion activities aimed to familiarise girls with the concept of body image and aid expectation setting (e.g., similar topics will be discussed during the focus groups). Activities included guided imagery and journaling. First, an audio clip instructed girls to visualise themselves playing their favourite sport and note the physical sensations, thoughts, and feelings they experienced. Girls were then instructed to draw the image and bring it to the focus groups for sharing. Second, in a journaling activity, girls were asked to reflect on, and respond to, the following questions: *When playing sport, what type of things help you feel good about your body, and why?* and *When playing sport, what type of things make you feel worse about your body, and why?*

### 2.3.3. Focus group activities

Focus groups commenced with an overview of the research aims, introductions, and an icebreaker activity (10 min). Following the orientation tasks, girls participated in activity one, where they shared their images from the guided imagery activity and responded to the following prompts (30 min): *Where are they?*; *What are they doing?*; *What physical sensations, thoughts, and feelings are they experiencing?*; and *What are the positive and negative experiences?* To increase girls' comfort and engagement, initially a co-facilitator shared their image and responded to the prompts. Following this, girls had a short break (5 min) and reconvened for activity two, where they reflected on the journaling task, and discussed the following questions as a group: *When playing sport, what type of things help you feel good about your body, and why?* and *When playing sport, what type of things make you feel worse about your body, and why?* (30 min). Girls were offered another short break (5 min) before moving into the final activity where they shared their intervention preferences (30 min). Girls were split into two groups and asked to brainstorm activities that would help girls to feel more body confident when playing sport. The small groups were supervised by a co-facilitator, and the whole group reconvened to share ideas. To finish, co-facilitators advised girls on next steps (i.e., follow-up survey) and closed the focus group (10 min).

### 2.3.4. Mixed method survey for focus group participants

The mixed method survey comprised demographic questions (age, ethnicity, geographical location, length of sports participation), qualitative questions pertaining to body image experiences in sport that were not explicitly covered in the focus groups (e.g., *List the things you would change about sports that would help you to feel good about your body, and why?*), and quantitative questions pertaining to intervention preferences, including topics, format, and implementation (e.g., length and number of sessions).

### 2.3.5. Qualitative survey for youth advisory board members

The qualitative survey provided to board members included an overview of the research rationale and aims, and four open-ended questions: *Where you live, what type of concerns, in general, do girls face in sporting environments?; Where you live, what type of body image concerns do girls have in sporting environments?; How might we tackle these concerns (both body image and more general) within a programme?;* and *Are there any other cultural considerations to be mindful of when developing a body image and sports programme for girls and coaches where you live?.* As per the social mission of the youth advisory board and to support personal and professional development, at survey completion board members were provided with access to educational resources on the topic of body image and sports participation (e.g., podcasts, educational videos, and research articles).

## 2.4. Data analysis

Qualitative data from the focus groups and surveys were analysed using template analysis, an iterative form of thematic analysis (King, 1998, 2012; King & Brooks, 2016). Template analysis was chosen due to its compatibility with large qualitative datasets, its utility in cross-national and diversity research, and the iterative and applied nature of the current research (i.e., intervention development; King, 1998, 2012; King & Brooks, 2016). A key feature of template analysis is its emphasis on hierarchical coding, whereby similar codes are clustered into first-level themes. These first-level themes can then be elaborated further through the use of subthemes or lower-level themes (King & Brooks, 2016). Hierarchical coding allows data to be coded and analysed at various levels of specificity within a template, for a more detailed exploration of areas relevant to the research aims. Alongside first- and lower-level themes,

**Table 2**
Research Questions Mapped to Themes Using Template Analysis.

| Research Question | First-Level Theme | Second-Level Theme | Third-Level Theme | Fourth-Level Theme | Integrative Theme | | |
|---|---|---|---|---|---|---|---|
| | | | | | Gender-Based Stereotypes, Discrimination, and Harassment | The Need to Educate Boys and Men | Advocacy and Agency |
| **What are girls' negative body image experiences in sport?** | 1. Objectification and Surveillance of Female Bodies | 1.1 Narrow Beauty and Athletic Ideals | | | Gender-Based Stereotypes, Discrimination, and Harassment | The Need to Educate Boys and Men | Advocacy and Agency |
| | | 1.2 Appearance Preoccupation | 1.2.1 Appearance anxiety and dissatisfaction | 1.2.1.1 Anxiety and dissatisfaction lead to unenjoyment and/or drop-out; 1.2.1.2 Perceived sport incompetence; 1.2.1.3 Wearing make-up to cover appearance during sport; 1.2.1.4 Post-sport appearance at school (e.g., sweating); 1.2.1.5 Having periods while playing | | | |
| | | | 1.2.2 Comparison making; 1.2.3 Body & diet talk | | | | |
| | | 1.3 Objectifying & Ill-Fitting Uniforms | 1.3.1 Objectifying uniforms increase comparison making; 1.3.2 Objectifying uniforms reduce enjoyment & participation | | | | |
| | 2. Teasing, Bullying, and Discrimination | 2.1 Appearance-Based Comments; 2.2 Competence-Based Comments | | | | | |
| | 3. Sport is Serious | 3.1 Labelled Sporty vs. Non-Sporty; 3.2 Seriousness Reduces Fun and Increases Dropout | | | | | |
| **What are girls' positive body image experiences in sport?** | 4. Accepting, Comforting, and Enjoyable Environments | 4.1 Diverse Representation | 4.1.1 Appearance and body diversity in media coverage and campaigns; 4.1.2 Diversity in clothing options (sizing, non-objectifying, religious preferences); 4.1.3 Importance of showcasing women in non-traditional sports | | | | |
| | | 4.2 Girl- and Women-Only Environments | | | | | |
| | | 4.4 Supportive & Knowledgeable Coaches | 4.4.1 Focus on performance not appearance; 4.4.2 Listen to and accommodate the girls' needs (uniform choice) | | | | |
| | | 4.3 Sport Promotes Mental Health | 4.3.1 Concentrating on sports provides "freedom" from other stressors; 4.3.2 Expressing emotions through movement / exercise / sport; 4.3.3 Social connectedness with friend, coaches, community improves mental health and well-being | | | | |
| | 5. Sport Promotes Self-Esteem | 5.1 Mastering a Skill; 5.2 Push Past Fears; 5.3 Advocacy for Girls | | | | | |
| | 6. Sport Promotes Positive Body Image | 6.1 Body Acceptance, Appreciation & Functionality; 6.3 Attuned Exercise; 6.4 Comfortable Clothing | 6.4.1 Personal preferences differ (e.g., combination of tight and baggy vs. only baggy vs. only tight) | | | | |

**Table 2** (continued)

| Research Question | First-Level Theme | Second-Level Theme | Third-Level Theme | Fourth-Level Theme | Integrative Theme |
|---|---|---|---|---|---|
| **What cross-national factors need consideration in the new intervention?** | 7. Cultural and Societal Norms | 7.1 Parents: Allies or Barriers<br>7.2 Religion & Uniforms<br>7.3 Local Representation of Women in Sport | 6.4.2 Comfortable clothing facilitates mobility and functionality | | |
| **What are girls' intervention preferences for addressing body image in sports?** | 8. The Environment | 8.1 Girl and Women-Only<br>8.2 Supportive & Knowledgeable Coaches<br>8.3 Choice of Uniform | | | |
| | 9. The Content | 9.1 New Skills<br>9.2 Shared Experiences<br>9.3 Ground Rules | 9.1.1 How to choose a uniform / exercise kit<br>9.1.2 How to increase body acceptance / appreciation / functionality<br>9.1.3 How to reduce appearance preoccupation (e.g., comparison making)<br>9.1.4 How to challenge others and self-advocate | | |
| | 10. The Modality | 10.1 Individual + Group Activities<br>10.2 Movement Activities<br>10.3 Writing Activities | | | |

template analysis allows researchers to identify and highlight integrative themes. Integrative themes are themes that permeate several thematic clusters and can contain both explicit participant accounts, as well as implicit codes identified by the researcher following a thorough reading of the transcripts and during the analysis process (King & Brooks, 2016).

Qualitative data were pseudonymised, transcribed verbatim, and where necessary, translated into English by researchers fluent in both languages. Data were transferred and organised in NVivo version 12. Focus group and survey data were analysed by the first author, who identifies as an Australian White woman and is an early career researcher with expertise in clinical psychology and applied body image research. Prior to coding, the first author read through all transcripts to familiarise herself with the content. She also confirmed her interpretation of the translated data with the facilitators to ensure the original meaning was retained. Next, a coding template was developed on the basis of a priori themes decided on by the research team, which were derived from existing literature on body image and sport (see Table 1) and a subset of data (i.e., three focus groups). This initial template was then applied to the remaining data (i.e., 11 focus groups) using deductive and inductive analytical approaches, and a priori themes were either removed or modified in light of new data. This process resulted in the final version of the template that encompassed all relevant data, on which the below results are based (see Table 2).

During the analysis process, the first author sought incremental input from the second, third, and last authors, who provided feedback on the interpretation and analysis of focus group data. Specifically, the research team reviewed the initial template and versions four (half of the focus groups) and eight (all of the focus groups). The second author identifies as a White European woman and is an early career researcher with expertise in applied body image research and sport and exercise psychology. The third author identifies as a Hispanic Latina woman and is a research associate with clinical experience in eating disorders and body image. The last author identifies as an Australian White woman and a Professor in Psychology with extensive experience in developing and evaluating body image interventions in different geographical and cultural contexts. The overall research team has a combined 69 years of experience in body image and sport research.

We adopted a limited realism philosophical position, which combines a commitment to a realist ontology with a constructivist epistemology (King & Brooks, 2016). Research from this position often uses a priori themes to guide the analysis, informed by theory or pre-specified evaluation criteria; quality checks to stimulate critical thinking; and reflexivity throughout the analytical process (King & Brooks, 2016). In line with this position, a series of quality check procedures were utilised throughout the analysis process, including: an audit trail that kept record of the decisions made and how analyses evolved over time; reflexive comments about how the first author's position shaped decision making and analyses; critical comments and discussions from the research team and how these informed the three template iterations; and the use of participant quotes as exemplars of the findings.

## 3. Results

### 3.1. Qualitative data from focus groups and survey responses

Template analysis resulted in 10 first-level themes, each split into lower-level themes and three integrative themes. Below, first-level themes are described, and all lower-level themes are illustrated with a series of extracts indicative of interview data. To preserve participants' anonymity, quotes are de-identified and pseudonyms are used. The full breakdown of the themes and their relationship to the a priori research questions are presented in Table 2.

### 3.1.1. Negative body image and sport experiences of girls

With regards to girls' negative body image and sport experiences, three first-level themes were identified: 1) objectification and surveillance of female bodies, 2) teasing, bullying, and discrimination, and 3) sport is serious. These factors were implicitly discussed during the initial guided imagery activity (e.g., identified in their image descriptions) and explicitly discussed during *activity two* of the focus groups (i.e., girls were asked to describe factors that worsened their body image) and in questions one and two in the youth advisory survey.

#### 3.1.1.1. Objectification and surveillance of female bodies.
Across all focus groups and youth advisory responses, participants described the objectification and surveillance of female bodies within sport and society more broadly. They identified three domains where this theme was most salient. First, participants reported narrow beauty and athletic ideals within their sport and felt pressure from others to achieve this appearance. In some instances, girls recalled feeling anxious and disappointed when their body did not meet this ideal; a theme that was particularly salient for those whose appearance was considered different from the ideal body type of their respective sport.

> It's [being skinny] the normal thing you should be in dance. Everyone says you need to be skinny. Have small, little legs. Creating these aesthetics for ballet or any kind of sport creates insecurities and makes people not feel as comfortable. – Jasmine, US, 15–17.

> I usually wear tight leotards. So, when I was asked to take a video and watch it, I felt disappointed because my legs were thicker and shorter than I expected. I wish they were thin and long. – Aiko, Japan, 11–14.

Consequently, several focus groups and youth advisory responses explained how a majority of girls were underrepresented, particularly in fashion and media. That is, most girls did not have the ideal body type that is often used to design sport attire and promote brands.

> When I look in the media, I see a whole bunch of tall, White dancers. With straight butts, so it's kind of like where do I fit in this category? – Sasha, US, 15–17.

> Sports clothes and uniforms are designed with the stereotypical "athletic body" in mind. Girls with larger builds, more curves, or larger breasts are not catered to. – Olivia, South Africa, 18–35.

Second, most groups and youth advisors acknowledged an appearance preoccupation among girls while playing sport, with some groups acknowledging problematic behaviours that increased their appearance anxiety and dissatisfaction, including comparison making, body checking, and body and diet talk. In some instances, participants recalled how this appearance preoccupation led to disengagement from sport altogether.

> In the pool, when I put on my bathing suit [...] I feel a bit bad because I actually have stretch marks on the tops of my thighs and I'm scared people will judge me. – Sophia, France, 11–14.

> I used to love dancing, but I used to compare myself to the other girls, like look how long their thighs were, and how big mine were compared to them. – Amber, UK, 15–17.

> I always weigh myself at the end of practice, and it's uncomfortable if I'm heavy. – Yoko, Japan, 11–14.

> This may seem positive to people but sometimes when people compliment my body it actually makes me feel bad because what if my body changes? Now I feel like I have to maintain a certain body. – Chantelle, US, 15–17.

> I stopped swimming, despite being a great swimmer, when I was going through puberty. I was constantly being told by adults that I had a great "swimmers' physique", which to me was a nightmare, as I saw a swimmer's body as broad, and I wanted to be skinny like the models I saw in magazines. – Kate, UK, 18–35.

Finally, most groups described how their body image concerns were exacerbated by limited uniform options, which were perceived as ill-fitting and/or objectifying. Consequently, some groups recognised how these uniforms detracted from their sport experience, including concentration, performance and enjoyment. Several youth advisors also noted that girls' uniforms were often policed by adults and/or sport organisations, leaving girls with little authority or autonomy in uniform selection.

> Most [sport] clothing is tight, and a majority of people do not feel comfortable with this type of clothing. – Isla, Mexico, 15–17.

> When I was in the volleyball club, I used to wear bloomers [high cut gym shorts]. They were so short that everyone could see my underwear, and I was so worried during the match. I wanted to wear pants as soon as possible. – Yasu, Japan, 11–14.

> I'm never really self-conscious about the way that I look and I can focus more on the sport. But in volleyball, since you have to wear the short Spandex and tight shirt, obviously, I'm more self-conscious about it […] When I'm worried about the way that I look in my uniform I can't do as well in the sport anymore, which is another reason why I prefer playing soccer, because I feel really comfortable and I [end up] enjoying the sport more. – US, Kylie, 15–17.

> In most cases girls wear shorts for sporting activities and girls who are bigger are judged by other schoolmates and adults and asked to wear tights whereas slimmer girls aren't. This is a huge concern especially in schools where girls cannot buy tights or where wearing tights isn't allowed. – Aneni, Zimbabwe, 18–35.

#### 3.1.1.2. Teasing, bullying, and discrimination.
Across all focus groups and in several youth advisory responses, participants recalled either witnessing or experiencing appearance- and competence-based teasing and bullying while playing sport, including weight- and gender-based discrimination. They also identified boys and men as the common perpetrators of these behaviours and noted that in some instances, coaches ignored or normalised these behaviours.

> Some people used to ask me, "You're fat, how will you be able to play [soccer]?" – Maya, India, 11–14.

> Girls with larger builds are automatically considered unfit and unhealthy. They often think that they are not capable of playing a sport or are bullied by their teammates for being larger. – Olivia, South Africa, 18–35.

> I used to hear things like, you can't play rugby because you're a girl. – Malika, UK, 11–14.

> The teacher was a bit macho and he told us, "Well, they are men, they will be looking even if you put on pants or a sweatshirt". – Lucia, Mexico, 15–17.

#### 3.1.1.3. Sport is serious.
Lastly, across several groups and youth advisory responses, participants described sport as performance-oriented, competitive, and/or serious, which reduced their enjoyment of playing and in some cases increased the likelihood of dropout. At times, this competitive culture led girls to feeling "pigeon-holed" into "sporty" or "non-sporty" categories, which in turn influenced their self-perception and relationship with sport.

> I would like to play more football, but it becomes too serious and competitive, which stops it from being fun. – Zoe, UK, 15–17.

*People called me the sporty one even before I thought I was sporty and then I just took it on.* – Rachel, UK, 15–17.

*We are made to feel that if we're not good enough at the sport to play for the A-team or to play it professionally one day then we shouldn't bother playing.* – Olivia, South Africa, 18–35.

### 3.1.2. Positive body image and sport experiences

With regards to positive body image and sport experiences, girls' insights could be categorised into three first-level themes: 1) accepting, comforting, and enjoyable environments, 2) sports promotes positive self-esteem, 3) sports promotes positive body image.

#### 3.1.2.1. Accepting, comforting, and enjoyable environments.

A majority of focus groups and youth advisors made connections between one's physical environment and body image. That is, participants associated a positive body image with accepting (e.g., appearance diversity and inclusivity), comforting (e.g., supporting mental health), and enjoyable (e.g., social connectedness) environments, rather than those that were serious and punitive about girls' appearances and/or competence. More specifically, participants identified four key themes that contributed to accepting, comforting, and enjoyable environments.

First, girls valued diverse and inclusive representation, particularly within fashion and media. Specifically, they thought sport attire should be designed for all body shapes and sizes, as well as consider girls' religious beliefs and practices (i.e., hijab). One focus group discussed the importance of showcasing girls and women participating in non-traditional sports that do not necessarily centre around performance but focus on nature and enjoyment.

*[It's important] to show different body types, skin tones, and hair types within sport media.* – Morgan, US, 15–17.

*Provisions are not [and should] be made for girls that need to wear particular clothing according to their religion.* – Olivia, South Africa, 18–35.

*I'm not typically a sports person. I go to school on a bayou, and we have outdoor sports at school […] I will do activities like kayaking, canoeing, golf, fishing, and archery […] those aren't typical sports you hear about […] for those sports, you don't have to be athletic, it's about getting out there and trying new things and seeing what you like.* – Kristen, US, 11–14.

Second, most focus groups shared their preference for girl- and women-only sport environments, particularly the absence or removal of boys, and a preference for women coaches. This theme was particularly salient in the Mexico City focus groups, where issues of misogyny were explicitly raised by girls (e.g., *in Mexico, we live in a macho society* – Lucia, Mexico, 15–17).

*In my secondary school it [dance] was mixed, and I kind of felt uncomfortable when I was doing dance with them [boys]. But, then in PE it was separate, and I felt way more confident.* – Tahlia, UK, 15–17.

*Since I started taekwondo, I've always had male coaches, and for the past two years I've had Maria […] in taekwondo. In terms of technique, nothing changes, but in terms of the mental side of things there is a difference. I feel more comfortable with Maria than I did with my other coaches. Not in terms of practice but in terms of mental health* – Éléanor, France, 15–17.

While less common, girls across several groups reported having positive experiences with male coaches, and highlighted men's ability to both support and elevate girls in sports.

*My coach [...] he's more understanding because he has two daughters in the league, so he knows what they go through [...] He was more positive about our bodies because he didn't really focus on appearance, because we had a range of bodies [...] It was really nice to have him my first year because he taught me how to play volleyball [...] It improved my confidence, not just only in body but my skill [...] I was like "oh, I can do it".* – Lauren, US 11–14.

Third, and irrespective of the coach's gender, girls consistently described the integral role that coaches play in their sport experience, particularly with regards to their body image. Coaches who were supportive and knowledgeable were most favoured, particularly those who complimented or provided feedback on girls' performance, rather than their appearance. These coaches were also deemed more likely to address and accommodate girls' body image concerns and needs (e.g., offering uniform options).

*When I play [...] my coach always explains things to me […] "this has to be done like this or that". This increases my confidence very much.* – Ritika, India, 15–17.

*I was very self-conscious about my body and she [the coach] was just like "remember that your body does a lot of stuff for you and without your body you're not you [.] so you've got to take care of it".* – Nicole, US, 11–14.

*Something that made me feel really comfortable, is when the [volleyball] coach would give you options for the shorts […] They had basketball shorts […] I like how the coaches were understanding about things like that.* – Jess, US, 11–14.

Lastly, in nearly all of the focus groups, girls described the positive impact that sport environments had on their mental health and well-being. Sports offered girls an opportunity to detach from other life stressors, as well as the autonomy to express themselves, with many girls describing a sense of "freedom" or "liberty" when participating in sport. Girls also noted that playing sport was a time to be with friends, and that this social connection was a key motivator for participation.

*When I'm playing [softball] I feel very peaceful. I'm not really thinking about anything. I'm more focused […] my mind is in the game and I kind of feel stress-free and distracted because it doesn't make me think about other stuff […] like what's going on in my life […] I'm just focused on the game.* – Ava, US, 11–14.

*Dance makes me feel good about my body because I have creative liberty to do whatever I want with my body. Even when I am given a choreography, I am the one who chooses how I execute the movement.* – Imani, US, 15–17.

*I like when I am with my friends and as soon as someone is absent, I have a hard time going to practise, especially if it is someone I really liked.* – Haydée, France, 11–14.

#### 3.1.2.2. Sports promotes positive self-esteem.

A majority of girls across focus groups identified the link between sports participation and enhanced self-esteem (i.e., confidence in one's own worth or abilities). This link was most salient in three domains: mastering a skill, pushing past fears, and advocacy for girls. First, girls explained how sport presented them with opportunities to master various skills, which bolstered confidence and pride in their bodies' abilities.

*I'm happy when I can do something I'm not good at, or when I can finish the performance without dropping the equipment and without making any mistakes […] it is not always perfect, so I feel a sense of accomplishment that the results of practice are shown.* – Jun, Japan, 11–14.

**Table 3**
Girls' Intervention Preferences for Number and Length of Sessions and the Importance of Ordering of Activities and Topics.

| Intervention Features | Girls' Responses |
| --- | --- |
| **Number of Sessions (*n* = 62)** | *Frequency (%)* |
| One | 0 (0) |
| Two | 12 (19) |
| Three | 13 (21) |
| Four | 24 (39) |
| Five | 5 (8) |
| Six | 8 (13) |
| **Length of Sessions (*n* = 61)** | *Frequency (%)* |
| 30 min | 18 (30) |
| 45 min | 22 (36) |
| 60 min | 21 (34) |
| **Importance of ordering of activities (e.g., discussions and writing first, followed by movement *n* = 60)** | *Frequency (%)* |
| No | 39 (65) |
| Yes | 21 (35) |
| **Importance of potential topics (*n* = 59–61)** | *M(SD)* |
| How society (e.g., friends, family, and social media) impacts the way you think and feel about your body | 3.77 (1.09) |
| What are the appearance ideals for female athletes, and how do these ideals impact how you think and feel about your body | 3.85 (1.03) |
| What is 'body talk' and how do these types of conversations negatively impact how you think and feel about your body when playing sport | 4.10 (0.99) |
| Strategies that will help you (and others) to think and feel better about your body while playing sports | 4.72 (0.58) |
| Strategies for challenging other people's harmful behaviours (e.g., teammates and coaches) | 4.37 (0.81) |

*Note.* Importance of potential topics was scored on a 1–5 Likert scale, with 1 = *not at all important* and 5 = *very important*.

*Aspects of sport that help me to feel good about my body is the feeling I get when I finish working out because I feel accomplished and energised. Also, when I'm the first person to finish a practise drill because I feel fast and powerful.* – Morgan, US, 15– 17.

Second, they recalled sometimes needing to push past their worries or fears in sport, and when done , increased girls' confidence and ultimately their enjoyment of the sport.

*My favourite sport is swimming, but at first, I was very scared. I am a very fearful person and at first, I had bad memories because in the first class they put me into a pool when I didn't even know how to float. I left crying thinking that I did not want to return. I did not know that in such a short time it was going to become my favourite sport. I think that was one of the main things that gave me security. If I could do this, I could do many other things. It is my favourite sport because it helped me overcome my fears.* – Elena, Mexico, 15–17.

Third, girls described how gender discrimination and inequalities within sport required them to have confidence to advocate for themselves and other girls.

*The reason I like basketball is because of my height. But, people always have something to say about my height, saying that for a girl I'm too tall […] But, I felt peace within myself that I was able to overcome what everybody else was saying [you're too tall for a girl but cannot play with boys] and I was also able to persuade my teachers to make a girls' basketball team for year nines.* – Alicia, UK, 11–14.

*3.1.2.3. Sport promotes positive body image.* Similarly, most groups connected sports participation with positive body image. Specifically, girls described an accepatance and appreciation for what their bodies could do and experience while playing sport, and the importance of focusing on functionality and form, rather than on what their bodies look like. One girl even described participating in attuned exercise (Calogero et al., 2019), including listening to what her body was experiencing and adjusting her workout accordingly.

*What makes me feel good when I play sports is usually the end of practice. When we calm down, I stretch all the muscles I used during practice, it makes me feel great, it's my little moment when I can*

*take care of my body, and help it heal from all the work I did.* – Daphné , France, 15–17.

*What makes me feel good about my body is the way my body performs during games. If my legs are the way they are it's because they help me play the way that I do.* – Vanessa, US, 11–14.

*When I'm jogging, I feel free. After a few minutes, though, my breath cuts out and I slow down. I feel OK slowing down. I'm not embarrassed.* – Kiara, UK, 15–17.

Lastly, girls emphasised how their positive body image was fostered by comfortable sporting attire, particularly when it allowed for greater "mobility"; this in turn reduced girls' anxieties about revealing too much of their bodies.

*I feel good in my body when I'm wearing comfortable clothes […] I feel good with a top and leggings because that allows me more mobility.* – Romina, Mexico, 11–14.

*When the uniform fits correctly or covers stuff I feel insecure about, that also makes me feel good.* – US, Emily, 11–14.

*3.1.3. Cross-national considerations*
*3.1.3.1. Cultural societal norms.* Girls identified three lower-level themes that require consideration when working globally with girls in sport, including: 1) parents: allies or barriers, 2) religion and uniforms, 3) local representation of women in sport . First, girls identified parents as either allies or barriers, with this theme most prominent in collectivist countries (i.e., India), where family systems played an integral role in deciding girls' fate in sports, as well as other key aspects of their lives (education, relationships, work aspirations). Additionally, girls believed that educating parents about the benefits of sports and dispelling myths about sports participation (e.g., girls need to wear objectifying uniforms) would increase girls' participation.

*Many parents might have the perception that this game is played only wearing shorts and that's why they don't allow their girls to go out and play […] my parents have no problem with me wearing shorts […] the main issue is changing the mentality of the parents.* – Hema, India, 15–17.

Second, girls and youth advisors acknowledged that sports environments did not always cater to religious beliefs and practices,

and therefore increasing and sustaining girls' participation required organisations to accommodate these needs.

> *Sports attires may also be difficult for people to wear for religious or cultural reasons, and this sometimes means they just don't participate in the sport.* – Stephanie, Australia, 18–35.

Lastly, across several groups and youth advisory, participants placed importance on showcasing local women athletes, both in new intervention materials and society more broadly, as this would increase the relatability of intervention content, as well as provide relevant role models.

> *It will be important to recruit national athletes and their relevant associations into the implementation process. For example, Malaysians are mighty proud of them and look up to them as role models.* – Dhia, Malaysia, 18–35.

### 3.1.4. Programme preferences

With regards to girls' intervention preferences, they considered three domains as important: 1) the environment, 2) the content, and 3) the modality.

*3.1.4.1. The environment.* Girls' environmental preferences (i.e., the circumstances under which the intervention is delivered) largely mirrored the themes associated with the second research question (i.e., What are girls' positive body image experiences insport?). Specifically, girls emphasised that girl and women-only environments would increase girls' comfort (*make girl only groups* [Amelie, France, 11–14]; *some girls may not like doing it with boys, they might feel a bit uncomfortable around them* [Amber, UK, 15–17]). Girls also requested that coaches be knowledgeable and supportive about the topic of body image (*coaches should be trained on how to attend to female athletes and their body image* [Liliko, Togo, 18–35]), as well as show a willingness to take on feedback from their athletes about where they could improve (*the players should also feel comfortable with talking to their coaches about what they expect in their coach and where they feel their coach can improve* [Laila, US, 11–14]). There was also a consensus among groups that girls should be allowed to choose their uniform or sporting attire when participating in any sport-related activity (*girls should also be able to choose and not be judged on what clothes they want to wear when they're doing sport* [Portia, UK, 11–14]; *allow girls to wear what they need to feel empowered with their bodies and able to participate in sports* [Kate, UK, 18–35]).

*3.1.4.2. The content.* Girls sought to learn new skills from the intervention (address *important topics and help us see how we can apply these learnings in our lives* [Mariana, Mexico, 15–17]). This included, how to choose a uniform and exercise kit that was appropriate for their body (*it's important that girls are educated about the type of uniforms they could wear* [Amber, UK, 15–17]); how to reduce appearance preoccupation when playing sport (*we always teach young girls in the Aboriginal community not to compare themselves to others, as our bodies, how we look, our skin colour, hair,* etc. *can be very different to people from other backgrounds* [Ashleigh, Australia, 18–35]); how to challenge others about problematic body image behaviours and self-advocatcy (*teach them to have self-esteem in order to confront the criticisms of other people towards their body* [Celeste, Mexico, 11–14]); and, how to increase their body acceptance, appreciation, and functionality satisfaction when playing sport (*it would be really great if people accepted their bodies and that people come in different shapes and sizes* [Rachel, UK, 15–17]; *education on the differences of our bodies and abilities. It's okay not to be as coordinated, stronger, faster as others. For example, being really good at sprinting, but not good at long distance running. Know your own strengths and weaknesses and continue to reach for your own*

*goals.* [Ashleigh, Australia, 18–35]). Girls also placed a lot of importance on learning from one another and sharing lived experiences (*hearing other people's stories really make you feel better about yourself because you know that you're not alone in that situation* [Ava, US, 11–14]). Lastly, girls emphasised setting group norms that are maintained throughout the intervention (*making sure that everyone understands the ground rules of engagement […] it creates a safe space* [Lauren, US, 11–14]).

*3.1.4.3. The modality.* Girls suggested different modalities for communicating content; this included a combination of individual and group activities (*a sharing group where girls can talk about their experiences and share their concerns* [Elise, US, 11–14]; *when you journal you keep it to yourself, but if you're able to open up and express in words to your teammates that will help you instead of just keeping it closed and private* [Morgan, US, 11–14]); movement-based activities (*start with movement to get people hyped and more comfortable for the rest of the session* [Erin, US, 15–17]), and writing-based activities (*having a journal to make notes* [Laila, US, 11–14]; *writing activities can get the brain truly thinking about what the movement activities are about* [Vanessa, US, 15–17]).

### 3.1.5. Integrative themes

Three integrative themes were identified, which spanned the 10 first-level themes: 1) gender-based stereotypes, discrimination, and harassment; 2) the need to educate boys and men; and 3) advocacy and agency.

*3.1.5.1. Gender-based stereotypes, discrimination, and harassment.* Girls across all focus groups and those on the advisory board easily recalled incidents where they or their teammates were stereotyped, discriminated against, or harassed because they identified as being a girl and/or lived in a female body, and how these experiences negatively affected every aspect of playing a sport.

> *Sports have "genders". [In Malaysia] Girls rarely play basketball and soccer (often deemed as male sports), they join cheerleading groups and "soft" sports like ping pong, badminton, chess. Girls who play contact sports are seen as tomboys.* – Dhia, Malaysia, 15–35.

> *There is an idea that girls should not be there, that the sporting field is for boys, because there are not enough women in professional sports being represented in the media* – Kate, UK, 18–35.

> *I wasn't allowed to play basketball when I was in year eight, because they didn't have a girls' basketball team, they only had a boys' one. Me and my friends were like "oh, why don't we go and try out for the boys' basketball team", and we asked the teacher if we could. The teacher said no because we were girls, and the boys would play too rough. He said you girls should probably just focus on school. Comments like that made me want to stop doing sports in general.* – Alicia, UK, 11–14.

> *Before I started boxing at school, we played basketball and I liked it but the PE teacher would make us change our uniforms and [he] made us wear shorts and take off our jackets. The boys ran next to us when we practised and what bothered me a lot is that they always compared us saying "no, but that girl is pretty".* – Lucia, Mexico, 15–17.

*3.1.5.2. The need to educate male peers.* When recalling instances of stereotyping, discrimination, and/or harassment, girls often recalled that boys and men were the perpetrators. Relatedly, girls equated the absence of boys and men with better sport experiences, as well as improved body image. Girls determined that boys' and men's harmful behaviours were due to a lack of awareness and

education, and that this required attention if girls were to feel safer and more confident while playing sports.

> When I played sports at school the boys would say, "ah you have a big butt" or "big boobs", and someone slapped my butt. – Sophia, France, 11–14.

> I feel uncomfortable exercising in front of a man. We do not know how they take it, if the man is taking it as: "that is a person doing exercise" or they are rude people who are mean toward women. Then it is an insecurity; at that moment you get nervous, and, in your mind, you begin to imagine a thousand things [.] I think it's something that has happened to all of us. – Elena, Mexico, 15–17.

> I think it would be more beneficial if they [boys] got educated and learnt about it with us. If we weren't there, they might not take it seriously, but if we were there and girls were able to speak up individually, then they might have a better understanding of why girls take it personally if they talk about our bodies. – Malika, UK, 11–14.

*3.1.5.3. Advocacy and agency.* Girls across a majority of focus groups recalled gender-based inequalities within sport and described how girls should stand in solidarity with, and advocate for, one another when faced with stereotypes, discrimination, and harassment. Relatedly, some girls noted that this advocacy for themselves and one another led to a sense of autonomy and that they could influence the world around them.

> Girls should be confident and should not underestimate themselves. Many people say that girls are lesser than boys. But I don't believe this. People should not think like this. – Samira, India, 11–14.

> When I first started boxing, I didn't have any strength and I had no experience in sports. When I saw Camila and other teammates, I felt weak. But it became my favourite sport not only because of the sport itself but because of the people with whom I practised it with, it was my teammates who helped me. – Lucia, Mexico, 15–17.

> It's rare to have a girls' rugby club [in Japan], so we are seen as amazing by the community. – Mika, Japan, 15–17.

> We went to our head of year [.] saying that it was kind of unfair that there wasn't a girls' basketball team, and even though we tried to try out for the boys' team we were rejected by it. He was like, "okay, well, why don't you pitch to us an idea about the girls' basketball team". So, we came up with a whole PowerPoint, we also used the girls that wanted to join the basketball team and we got them to say stuff. Then it took quite a while for them to say yes, but it was still good that we actually got the opportunity to get it done. – Alicia, UK, 11–14.

### 3.2. Quantitative data from follow-up surveys

Girls' intervention preferences regarding topics, format, and implementation are reported in Table 3. Overall, most girls endorsed a four-session intervention that comprised 45-minutes sessions and felt it important that the sessions addressed both risk and protective factors, including strategies that will help girls to think and feel better about their bodies while playing sports, as well as challenge other people's harmful body image behaviours (e.g., teammates and coaches).

## 4. Discussion

This study is part of a larger research initiative that seeks to develop new interventions that upskill girls and coaches in creating safer and more inclusive sport environments that foster positive body image and sports enjoyment among girls. This paper pertains

to one of the development phases pertaining to the intervention that works directly with girls. As per the principles and processes for developing complex health interventions (O'Cathain et al., 2019a, b), we consulted the target audience on their experiences of the topic and concepts (e.g., positive and negative body image experiences while playing sport), as well as their preferences for how to address these experiences in a new intervention. To increase the scalability of this new approach, a cross-national lens was taken, whereby participants from 13 countries were consulted; thus, allowing for the intervention to be adapted, localised, and scaled up with greater ease. We discuss the current findings and how they will be used to inform the development of an initial intervention prototype.

### 4.1. Girls' negative body image and sport experiences

The current findings mirror and build upon the small body of qualitative research into girls' negative body image and sport experiences (e.g., Niefer et al., 2010; Sabiston et al., 2007; Slater & Tiggemann, 2010; Vani et al., 2021), as well as reflect similar themes observed in the larger body of quantitative research.

Aligned with sociocultural perspectives (Keery et al., 2004; Menzel & Levine, 2011; Petrie & Greenleaf, 2012a), and more specifically self-objectification theory (Fredrickson & Roberts, 1997), girls across all focus groups and youth advisory responses described a societal preoccupation with, and surveillance of, the female body in sport and how this was often done in an objectifying manner. Girls easily recalled appearance and athletic ideals associated with their sport and felt a pressure to achieve these standards. Similar to previous research, distress was most salient among girls whose bodies differed from the ideal body of their respective sport (Vani et al., 2020, 2021), as well as those who compared their appearance to others (Mosewich et al., 2009; Pila et al., 2014; Vani et al., 2020, 2021) and experienced appearance- and/or competence-based teasing (Slater & Tiggemann, 2011; Vani et al., 2020, 2021). As was the case with the current sample, body image concerns have shown to be magnified by the objectifying and ill-fitting uniforms that are offered and/or expected of girls in sports (Greenleaf, 2002; Slater & Tiggemann, 2010, Steinfeldt et al., 2013).

Notably, previous qualitative research into girls' negative body image and sport experiences has been conducted in Western, Educated, Industrialised, Rich, and Democratic (WEIRD) countries (e.g., Australia, Canada), whereas the current research involved participants from 13 nations that differed on language, ethnicity, geographical location, and socioeconomic status. When asked about unique features about their country or culture, girls and youth advisors identified three key topics that required consideration when developing an intervention for global use, including understanding the role that parents play in girls' body image and sports participation (e.g., gender norms reinforced by parents), accommodating girls' religious beliefs and practices (e.g., inclusive uniforms), and ensuring intervention content is relatable and representative of the dissemination countries (e.g., includes relevant examples of local and national athletes). Despite these cross-national considerations, the remaining nine first-level themes were prevalent across all focus groups and youth advisory responses. While this is the first study to qualitatively capture these cross-national considerations in the context of girls' body image and sports participation, collectively, these findings align with previous literature which recognises both universal (e.g., appearance ideals and pressures) and unique (e.g., religious beliefs and practices) body image experiences across different countries and cultures (Swami, 2015).

Given the salience of girls' negative body image experiences, it is unsurprising that they felt it important to address sociocultural pressures in the new intervention. Specifically, girls sought strategies that would help them to reduce their appearance preoccupation when playing sport, as well as how to challenge the harmful

attitudes and behaviours of others (e.g., body talk), including teammates and coaches. Extensive research demonstrates that targeting sociocultural risk factors within body image interventions is key to eliciting attitude and behaviour change (e.g., see Alleva et al., 2015; Kusina & Exline, 2019; McLean et al., 2016; Yager et al., 2013 for review); however, a majority of existing interventions that target girls' body image and sport experiences fail to address these risk factors (Matheson et al., under review). Given girls' preferences, as well as the existing evidence base, the new intervention will aim to incorporate techniques that address these key sociocultural pressures and apply them to sport-specific settings and scenarios.

### 4.2. Girls' positive body image and sport experiences

To our knowledge, this is the first study to qualitatively explore girls' positive body image experiences in sport settings. Overall, the current findings reflect trends within the broader positive body image and embodiment literature (Piran & Teall, 2012; 2015); in particular, theories pertaining to attuned movement (Calogero et al., 2019; Cox & Tylka, 2020; Reel et al., 2016). Aligned with these perspectives, girls felt most comfortable and confident in their bodies when they occupied accepting, comforting, and enjoyable sports environments. These reports echo research into the mechanisms that support embodying movement, whereby when environments promote body acceptance, rather than a pressure to modify one's appearance, individuals are less likely to engage in self-objectification and body surveillance; thus, reducing the likelihood of individuals engaging in additional problematic attitudes and behaviours (e.g., body shame and dissatisfaction, body talk, disordered eating; Cox & Tylka, 2020; Fredrickson & Roberts, 1997). Relatedly, girls felt it was easier to engage in positive body image and embodiment principles (e.g., body appreciation and functionality satisfaction), when they felt physically comfortable in the clothing they were wearing. This reflects the small but growing body of research that demonstrates the impact that sport attire has on women's comfort levels, as well as their cognitive and behavioural performance, with tight and objectifying clothing diminishing overall comfort and performance (Cox & Sabiston, Karlinsky, et al., 2020).

While girls placed importance on remedying their negative body image experiences, they equally emphasised the importance of developing an acceptance and appreciation for their bodies while playing sport. This was, in fact, the highest ranked topic among girls, compared to risk-factor related topics (see Table 3). Notably, some girls described already engaging in positive body image and embodiment principles while playing sport (e.g., body functionality, attuned exercise), with some even understanding how this certain way of thinking or behaving had a positive impact on how they felt about their bodies (e.g., more confident) and their experience of sport (e.g., more enjoyable). However, for the most part, girls did not have the language to identify these concepts or strategies as pertaining to positive body image and embodiment. This mirrors emerging research into women's journeys from a negative body image toward a positive body image, whereby they describe utilising a number of different strategies, including behavioural and cognitive, to transition towards a deeper and more holistic relationship with their body (e.g., Alleva et al., 2023; Holmqvist Gattario & Frisén, 2019). Given girls' preferences and their innate susceptibility to this way of thinking, applying positive body image and embodiment principles to sport settings and scenarios appears to be a highly acceptable approach among girls.

### 4.3. Next steps for developing an intervention prototype

As per the *combination approach* to intervention development (O'Cathain et al., 2019a, b), the current findings will be coupled with additional insights from other key stakeholders (e.g., coaches, community and industry partners) and the existing evidence base to inform the content, format, and structure of the new intervention. The evidence base will include literature that speaks to optimal intervention features for eliciting behavioural, affective, and cognitive change, particularly as it pertains to girls, body image, and/or sport participation (e.g., intervention modality [unimodal vs. multimodal], intervention facilitator [specialist vs. non-specialist], number of sessions [single vs. multiple] and session length; Alleva et al., 2015; Biddle et al., 2014; Owen et al., 2017; Pearson et al., 2014). We will also consult theoretical frameworks that demonstrate how to address girls' positive and negative body image (Fredrickson & Roberts, 1997; Keery et al., 2004; Menzel & Levine, 2011; Piran & Teall, 2012; 2015; Tylka & Wood-Barcalow, 2015), particularly those relating to movement spaces (Calogero et al., 2019; Cox & Tylka, 2020; Petrie & Greenleaf, 2002; Reel et al., 2016). Where intervention techniques do not specifically pertain to sports, they will be adapted for applicability to sport settings and scenarios.

Immediate next steps will involve developing an initial intervention framework, which outlines the number of sessions, session length, session structure and format, as well as maps proposed content (e.g., topics, activities) onto theoretical principles and describes intervention fidelity (e.g., how will this activity evoke outcome change; Owen et al., 2017). This will be an iterative process. That is, the literature will be routinely consulted and, where applicable, will be incorporated into the framework. Following creation of this framework, key stakeholders (e.g., girls, coaches, and community and industry partners) will be consulted and asked to provide feedback, after which the framework will be expanded, with intervention materials developed. Once the intervention materials are created, they will be reviewed again by key stakeholders before piloting the approach for feasibility (Bowen, 2009). This will include acceptability among the target population, feasibility of delivering the intervention within sport settings and feasibility of conducting a randomized controlled trial on an intervention of this nature.

### 4.4. Limitations and future directions

This research should be interpreted in light of several limitations. First, although a cross-national lens has been applied throughout this research, it is important to acknowledge that the authorship team, while diverse in nationality and cultural backgrounds, predominantly identify as White women. Subsequently, the interpretation and analysis of themes, which feeds into the development of intervention content, structure, and format, may be interpreted differently by others of differing identities.

Second, while a diverse group of girls were consulted, a key demographic that was unrepresented were individuals with Physical Disabilities and/or Visible Differences. Although it cannot be assumed that girls in the focus groups did not live with these conditions, it was not explicitly accounted for in the methodology. Research into the intersection of body image and disabilities highlight the unique body image experiences of this population, and how interventions designed for the general population are not always suitable or appropriate for those living with a Physical Disability and/or Visible Difference (Alleva & Tylka, 2021; Rice et al., 2021). With that said, informal and formal consultation has been conducted with experts on the intersection of body image and Disabilities during the intervention development phase, with plans for consultation with girls with Physical Disabilities and/or Visible Differences in the later phases of this research (e.g., piloting of intervention materials). Relatedly, participants did not disclose their gender identity in the focus groups or the mixed method survey; thus, the percentage of participants different identities is unaccounted for (i.e., cisgender, genderfluid, genderqueer, non-binary, transgender). Gender diverse people are equally, if not more likely, to

experience prejudice and discrimination within sport environments (Cunningham & Pickett, 2018; Walker & Melton, 2015). Therefore, in the forthcoming intervention development phases, these perspectives and experiences will be taken into consideration and incorporated into the intervention framework (e.g., acknowledging how gender stereotypes in sport harm both girls and gender diverse people).

Third, focus groups comprised girls from the same team and/or sport organisation, as well as a representative from the respective organisation. While there are many advantages to having a familiar audience within one focus group (e.g., increased comfort, reduced power imbalance between a collective participant group and the researcher), this familiarity may have also influenced the breadth of girls' responses due to pre-existing relationships with teammates and/or the representative (e.g., girls did not want to call out harmful behaviours of those in the group; Litosseliti, 2003). Notably, in the mixed method survey, girls were given the opportunity to provide additional insights and feedback that they may have felt uncomfortable disclosing during the focus groups. Further, the presence of the representative was a safeguarding requirement and the authoring researchers worked closely with organisations to identify a trusted representative that girls felt comfortable discussing and sharing ideas in front of.

Fourth, digital conference platforms (e.g., Zoom) allowed for the focus groups to be conducted during the peak of the COVID-19 pandemic; however, recordings associated with these platforms did not always capture the communication between girls and focus group facilitators. In some instances, small sections of the recordings were inaudible, which prevented the interpretation and analysis of girls' responses, particularly in the recordings for France and India; thus, somewhat impacting the quantity and quality of data available to the authors. Where segments were missing, the co-facilitators were consulted and asked to provide insights into the quotes pertaining to the missing segments.

## 5. Conclusion

This study is the first to provide global qualitative insights into girls' positive and negative body image experiences in sport, and their preferences for fostering and remedying these within intervention efforts. This research provided a deeper understanding of the different sociocultural factors that both hinder and help girls to feel comfortable and confident in their bodies while occupying sport environments. Across all nations, girls placed importance on learning new skills that would improve both their negative (i.e., appearance preoccupation) and positive (i.e., body appreciation) body image while playing sport. Further, girls emphasised the significant impact that others have on their body image, and placed responsibility on coaches, as well as male peers to be educated on this topic. Collectively, these insights highlight the critical need for systemic change in sports, with interventions needing to address different socioecological levels (i.e., individual through to societal beliefs and attitudes; Sabiston et al., 2019). Overall, the findings from this phase of intervention development are imperative in developing an acceptable, effective, and sustainable intervention that ultimately reduces the number of girls who drop out from sport due to body image concerns.

## CRediT authorship contribution statement

**Emily L. Matheson:** Conceptualisation, Methodology, Formal analysis, Investigation, Data curation, Writing – original draft, Supervision, Project administration, Funding acquisition. **Jekaterina Schneider:** Conceptualisation, Methodology, Investigation, Writing – review & editing, Supervision, Project administration. **Aline Tinoco:** Conceptualisation, Methodology, Investigation, Writing – review & editing. **Hannah Silva-Breen:** Investigation, Writing – review & editing. **Nicole M. LaVoi:** Conceptualisation, Writing – review & editing, Supervision, Project administration, Funding acquisition. **Phillippa C. Diedrichs:** Conceptualisation, Methodology, Writing – review & editing, Supervision, Project administration, Funding acquisition.

## Data Availability

Data will be made available on request.

## Declaration of Competing Interest

This research was externally funded by commercial funders (Dove Self-Esteem Project, Unilever; Nike Inc). PCD is an independent consultant for Dove (Unilever). PCD and ELM are independent consultants for Nike Social & Community Impact. The authors declare no other conflicts of interest in relation to this work.

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