

Fostering positive body image and preventing disordered eating in girls engaged in youth sport

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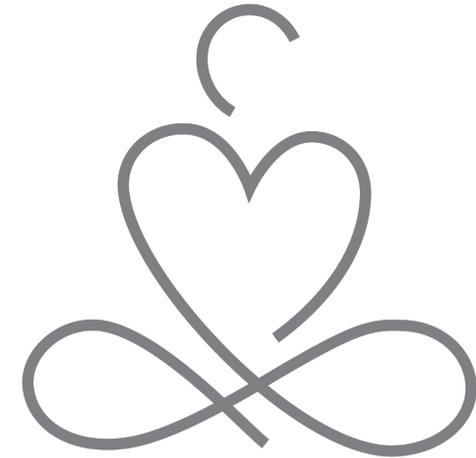
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National Eating Disorder Information Centre

Body Image & Health Research Lab (BIH)

- School of Kinesiology at Western University in London, Ontario (Canada)
 - Directed by Dr. Eva Pila
- Research focuses on understanding body image and body (in)equity as it relates to movement, mental health and well-being
- Integrate frameworks from health, exercise, social, and clinical psychology to understand conditions that disproportionately impact individuals in marginalized states



Body Image & Health Research

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Mental Health & Physical Activity Research Centre (MPARC)

- A multidisciplinary research environment at the University of Toronto dedicated to pnd evaluating interventions to promote physical activity and mental health among people at risk of inactivity and mental health problems
 - Directed by Dr. Catherine Sabiston
- Research focus includes the influences of motivation, self-conscious emotions, stress, affect, and social support on physical activity, youth and adolescent sport involvement, and emotional well-being

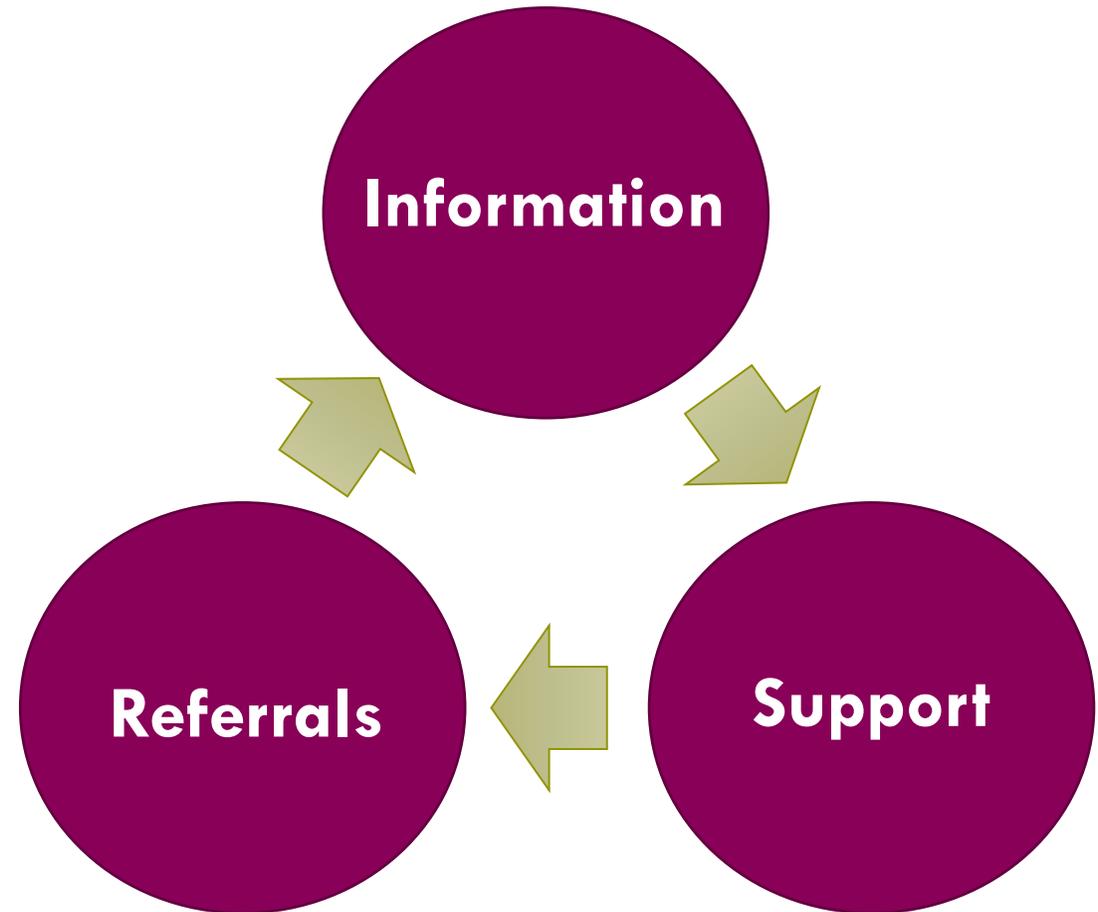


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National Eating Disorder Information Centre

The National Eating Disorder Information Centre (NEDIC)

- Non-profit founded in 1985 based out of the University Health Network in Toronto
- National, English-speaking toll-free telephone helpline and instant chat service at www.nedic.ca
- Searchable online directory of 700+ treatment and support providers across Canada
- Prevention through education (resources, training) and health promotion campaigns



**WE WILL NOT GO BACK TO NORMAL.
NORMAL NEVER WAS. OUR PRE-CORONA
EXISTENCE WAS NOT NORMAL OTHER THAN
WE NORMALIZED GREED, INEQUITY, EXHAUSTION,
DEPLETION, EXTRACTION...
WE SHOULD NOT LONG TO RETURN, MY FRIENDS.
WE ARE BEING GIVEN THE OPPORTUNITY
TO STITCH A NEW GARMENT.
ONE THAT FITS ALL OF HUMANITY
AND NATURE.**

**- SONYA RENEE
TAYLOR**

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Goals of this presentation

- **Learn** about work underway to build tools for coaches, peer athletes, and sport organizations to foster positive body image and prevent DE
- **Review** results collected from our scoping review and from our focus groups with sport stakeholders across Canada
- **Provide** insight into key questions still remaining
- **Get introduced** to a new website hub where you can learn more and follow this work as it develops further

Why we're here

- **23-25%** of youth ages 12-24 presenting across clinical and non-clinical service sectors report disordered eating symptoms like binge eating and weight control behaviours (Henderson et al., 2017)
- **2.2%** of boys and **4.5%** of girls in a large adolescent sample met DSM-5 criteria for an eating disorder (Flament et al., 2015)
- Girls as young as **5** prefer dolls with a thinner physique (Boothroyd, Tovee, & Evans, 2021)
- Being teased for your **appearance** is the most common form of bullying in childhood *and* in the workplace

Why we're here

- Sport has a range of benefits including physical health, leadership, socialization, and mental health
- However, as many as **62%** of Canadian girls are not playing sports or are physically active at all (Canadian Women & Sport, 2021)
- A significant factor that prevents girls from continuing sport is due to **negative body image** and the **body pressures** faced when in the sport environment (Slater & Tiggemann, 2011)
- **43%** of adolescent girls report the quality of sport as a barrier. With every **1 in 3** of these girls reporting **low confidence, negative body image** and poor perceptions of belonging (Canadian Women & Sport, 2021)

Recognize: Prevalent components of disordered eating

(Levine & Smolak, 2021)

Thoughts (cognitions) and feelings (emotions)

Negative body image that keeps one from engaging in life and reduces satisfaction with one's life

Overvaluing weight and shape in judging oneself or defining one's worth

Unrealistic standards of beauty, fitness, and muscularity

Anxiety and high levels of concern around eating, weight, and shape

Fear and loathing of fat, driving pursuit of thinness and leanness

Body- or eating-related shame, anxiety, and/or guilt

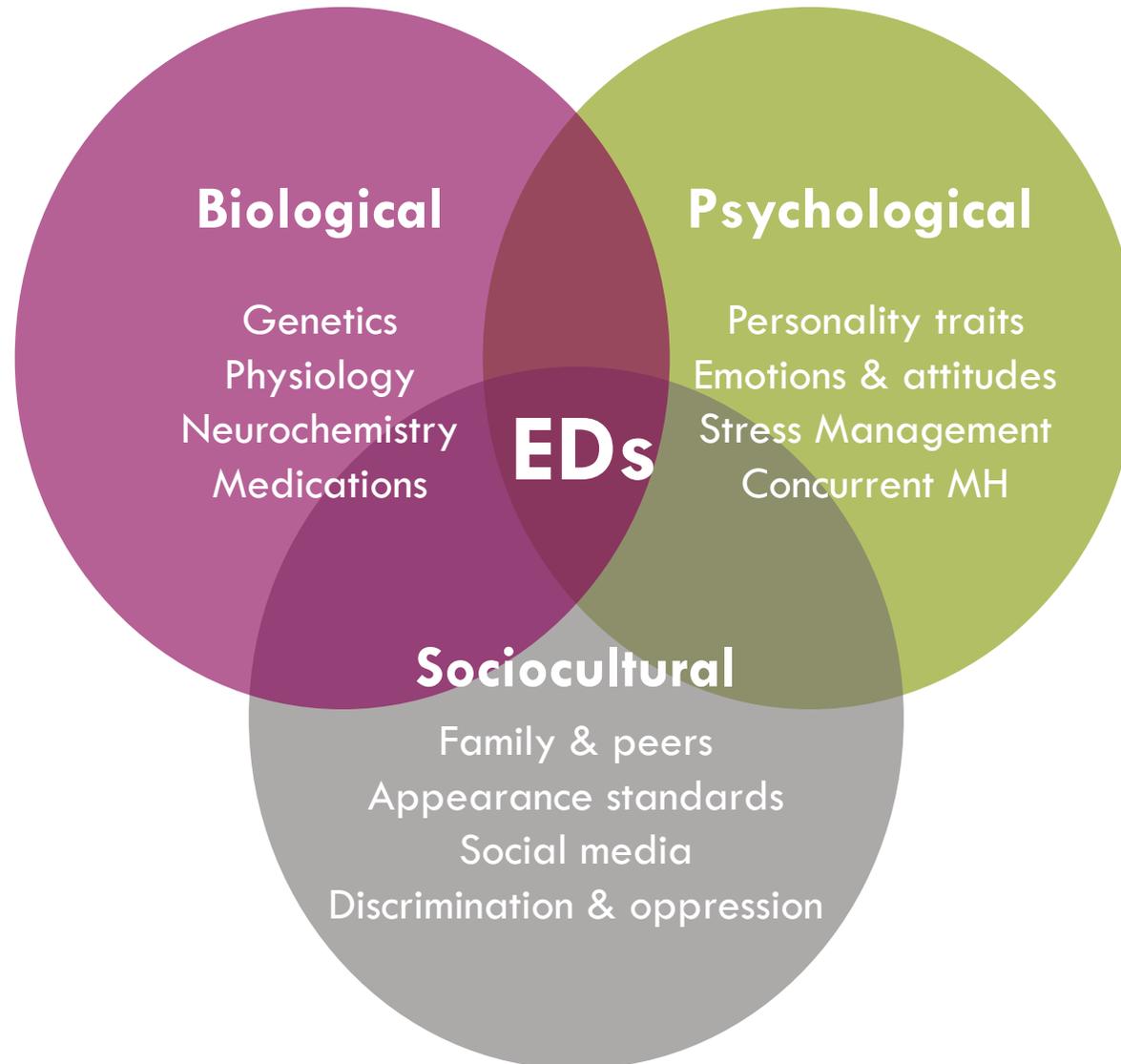
Behaviours

Trying to control one's weight (i.e. restricting calories, over-exercising despite pain, using laxatives, etc.)

Binge eating

Body checking and engaging in body-based social comparison

Recognize: What causes an eating disorder?



Recognize: Exercise and Movement in Diet Culture

- Diet culture tells us that we need to move our bodies in certain ways and a certain amount to be healthy; “healthy” and “small” or “lean” are often used interchangeably
- As a result, physical activity is seen as a way to make our bodies smaller or leaner and therefore (supposedly) healthier
- But being in a smaller body does not make a person healthier, and being in a larger body does not make a person less healthy
- Movement is full of so many positives that have nothing to do with weight or appearance



Where does *Athletes Embodied* fit in?

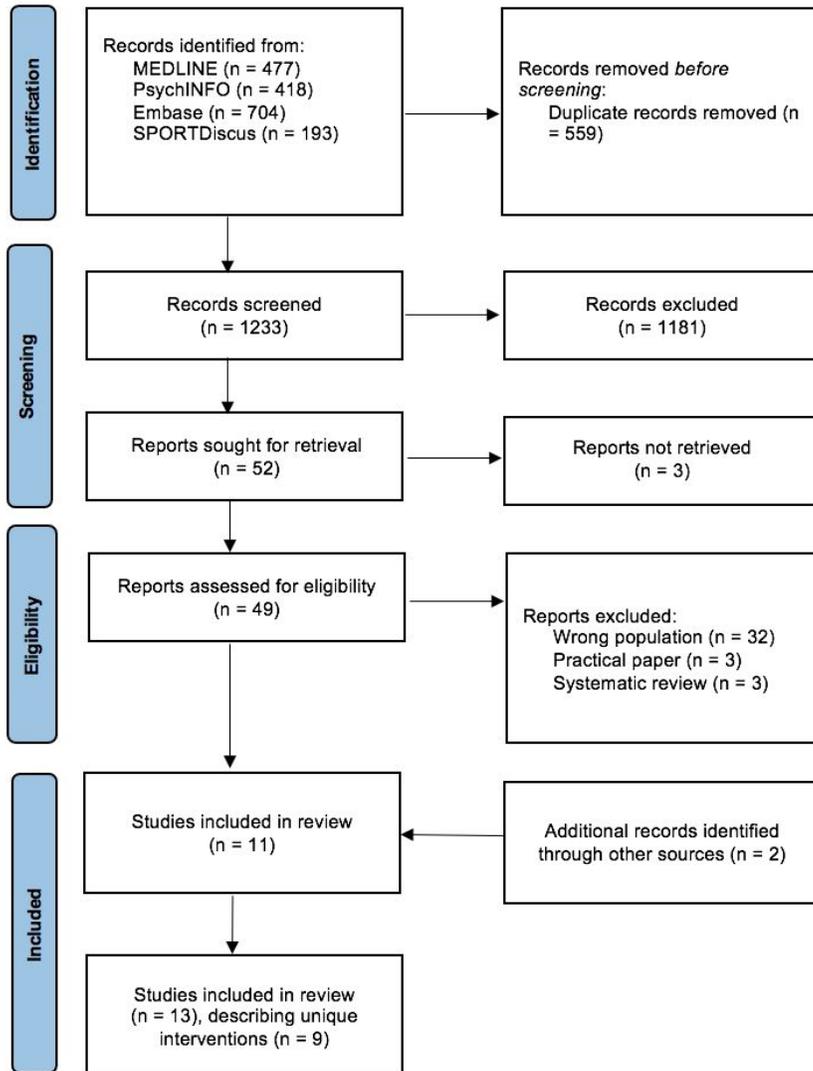
- Researchers & non-profit organizations have declared an **urgent need** for comprehensive & inclusive sport-specific interventions that demonstrate a long-term reduction in body image concerns

Scoping review of body image interventions to try and answer the following questions:

1. How can we help mitigate the pressures around body shape, size, and appearance that greatly impact young girls.
2. How can we advance sport-specific body image promotion & eating disorder prevention strategies

Facilitate focus groups to hear direct feedback from stakeholders in youth sport (incl. many of you!)

Scoping review results



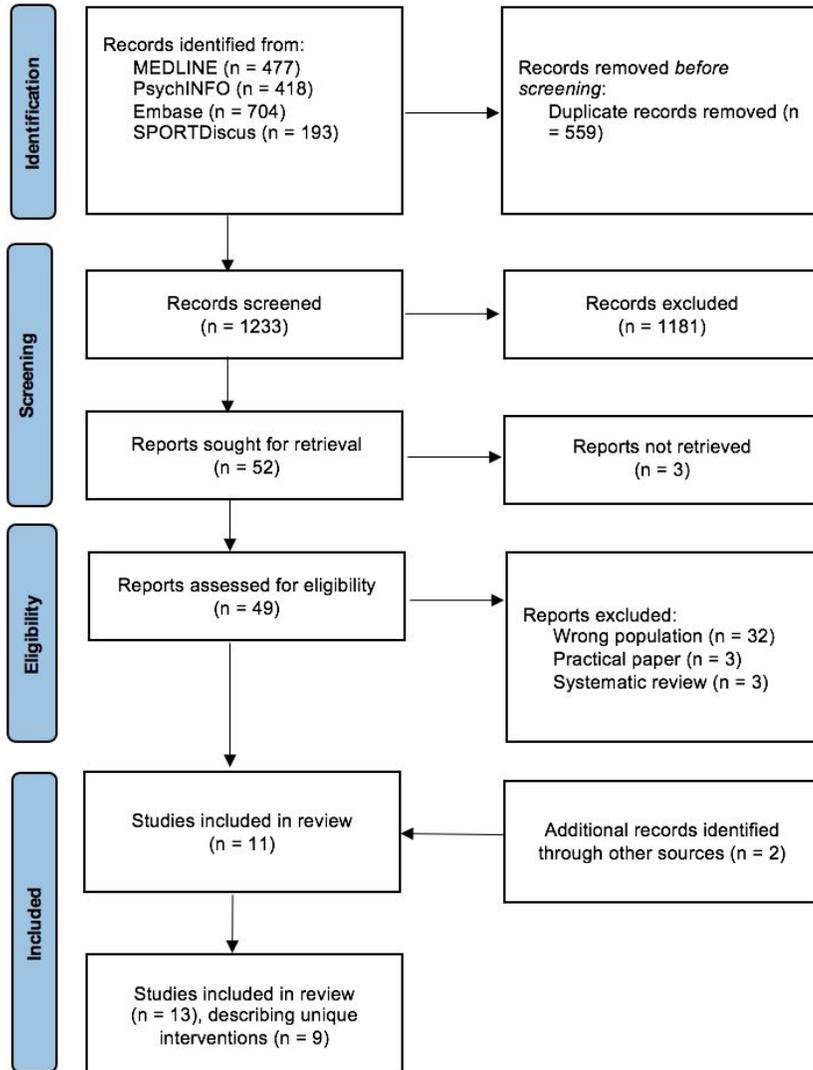
Study Characteristics

- 13 identified articles, 9 unique interventions
 - Published between 1996 and 2017
 - Majority conducted in the United States (61.5%), Canada (30.8%), and Norway (7.7%)

Participants

- 4461 youth athletes aged between 11 to 18 years
 - $M = 235$, $SD = 263$; range: 23-1668 athletes
 - High school sports (38.4%), elite sport school (30.8%), competitive club sport (15.4%), recreational athletes (7.7%)

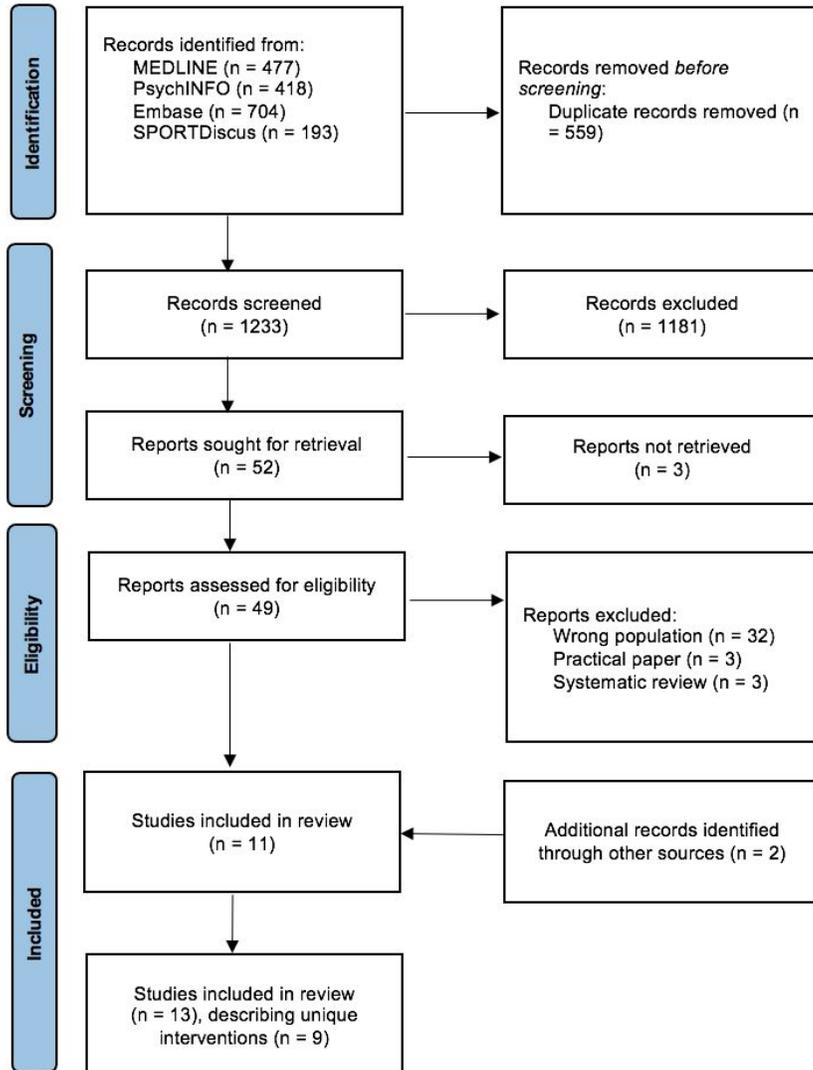
Scoping review results



Nature of Interventions

- Central aim -- *educating or increasing eating disorder knowledge, preventing disordered eating behaviours, and/or enhancing body image indices* in adolescent athletes
- All delivered face-to-face in the format of group sessions
- 5 informed by **theoretical frameworks** (e.g., social cognitive theory)¹⁻⁵
- **Total intervention duration**
 - $M = 20.78, SD = 23.64$ weeks; range: one-off session to year-long intervention
- **Total intervention sessions**
 - $M = 5.00, SD = 2.96$; range: 1-10 sessions
- 2 intervention emphasized systemic changes in the sport organization's culture by incorporating **environmental interventions**^{5,6}

Scoping review results



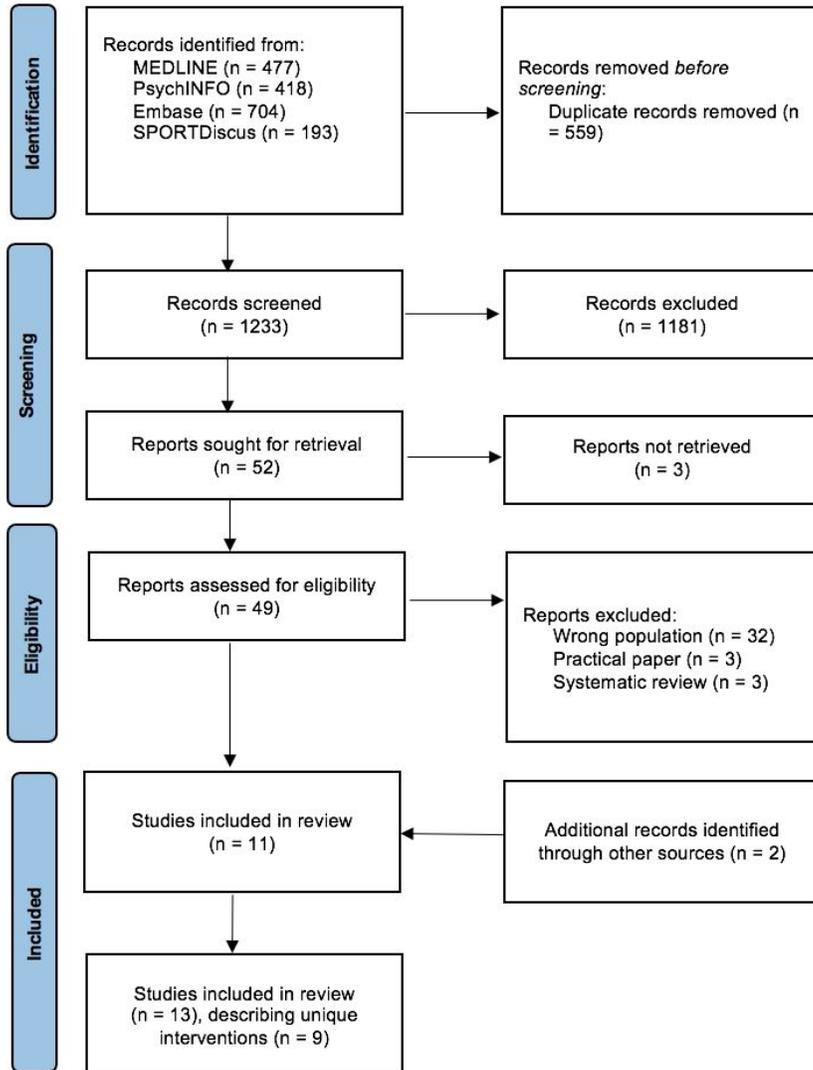
Intervention Facilitators

- **Researcher-facilitated** ($n = 4$; 44.4%)^{1,4,5,7}
 - Three of these had very high participant retention rates (>90%)^{4,5,7}
- **Coach-facilitated and peer-led** ($n = 1$; 11.1%)⁸ and **peer-led only** ($n = 1$; 11.1%)⁹
 - Lower participant retention rates (range: 62-72%)
- **Health or clinical professional-facilitated** ($n = 3$; 33.3%)^{2,3,6}
 - Very low participant retention rates (range: 21-58%)

Facilitator Training

- **Training manual**⁹ or **educational guidelines**^{4,6} ($n = 3$; 33.3%)
- **Educational sessions** for coaches and or/parents^{4,6} and staff⁵ ($n = 3$; 33.3%)

Scoping review results



Materials

- Educational lectures of informational workshops (n = 9; 100%)
 - Interactive activities and discussions (n = 4; 44.4%)^{3,4,7,8}
 - Workbooks, journals, or diaries (n = 4; 44.4%)^{4,7-9}
 - Video clips (n = 2; 22.2%)^{1,9}
 - Social media (n = 1; 11.1%)⁴
- Interventions that utilized supplementary intervention delivery methods reported high participant retention rates (range: 56-96%)
- Homework exercises (n = 3; 33.3%)^{4,7,8}
 - High participant retention rates (range: 72-96%)
 - Only two reported significant reductions in disordered eating psychopathology^{4,8}

Scoping review results

Randomized Controlled Trials ($n = 8$)

- Five reported **significant reductions** in **disordered eating psychopathology** from pre- to post-intervention^{8,10} or follow-up^{4,11,12}
- One reported **significant reductions** in **intentions to use restrictive dietary behaviours** to lose weight from pre-intervention to follow-up³

Characteristics of successful interventions ($n = 6$)

- Only 3 unique interventions^{3,4,8}
 - Addressed topics related to **self-esteem, body image, prevention of disordered eating, and nutrition**
 - **High participant retention ratios** ($M = 71\%$, $SD = 15\%$)
 - Variable in frequency (3-8 sessions), intervention duration (3-52 weeks), and length of intervention sessions (45-90 minutes)

Scoping review results

Non-Randomized Trials ($n = 4$)

- One non-RCT with two treatment arms¹
 - Improvements in nutrition knowledge, perceived susceptibility to the Female Athlete Triad, and self-efficacy for adopting and maintaining healthier dietary habits
 - Disordered eating behaviours significantly increased in intervention participants from pre-intervention to follow-up
 - Moderate participant retention rate (67%), low frequency of intervention sessions (3 weekly sessions), and only targeted nutrition knowledge
- Three non-RCT with one treatment arm^{2,5,9}
 - Significant reduction in disordered eating psychopathology⁵ and improvements in disordered eating knowledge from pre- to post-intervention⁹
 - Patterns of disordered eating significantly increased from pre-intervention to follow-up²

Scoping review results

Characteristics of Successful non-RCT Interventions

- Longer in duration (≥ 3 months) and provided similar session frequency (2-4 sessions), but were variable in retention rates
- Addressed topics of **body image**, **prevention of disordered eating** and **nutrition**, but not self-esteem^{5,9}

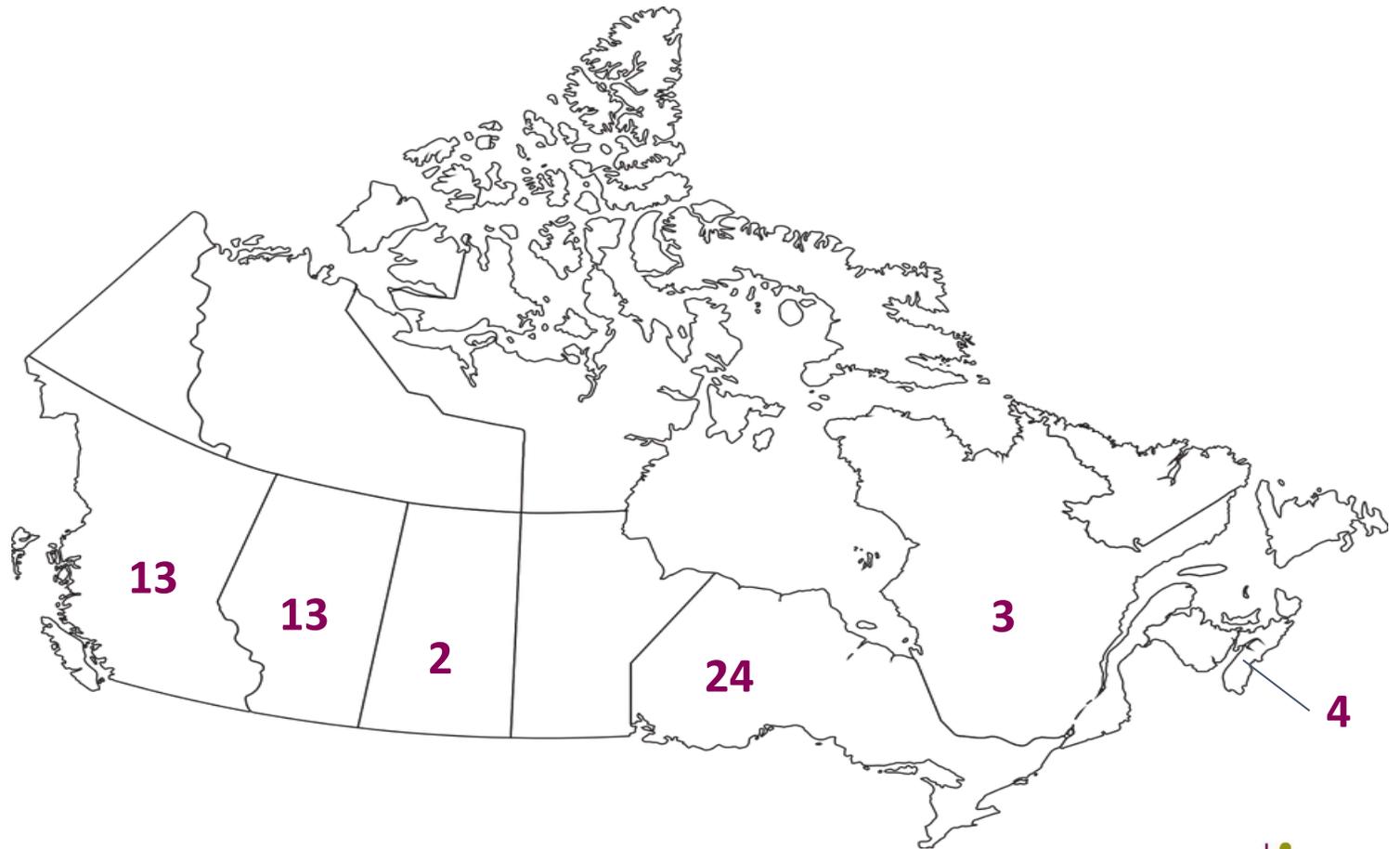
Characteristics of Unsuccessful non-RCT Intervention

- Long intervention duration (1-year) and very low participant retention rates (21%)
- Provided supplementary guidelines to achieve 'healthy' weight loss



Stakeholder consultation

- **124 stakeholders** were contacted from across Canada
 - NSO ($n = 15$), PSO ($n = 57$), local/club sport organization ($n = 9$), government sector ($n = 14$), education ($n = 9$), not-for-profit ($n = 20$)
- **59 stakeholders** participated
 - Aesthetic sport ($n = 11$)
 - Non-aesthetic sport ($n = 31$)
- **18 virtual focus groups**
 - $M = 85.44$, $SD = 6.87$; range: 75-95 minutes
 - September 2020 - January 2021



Stakeholder consultation

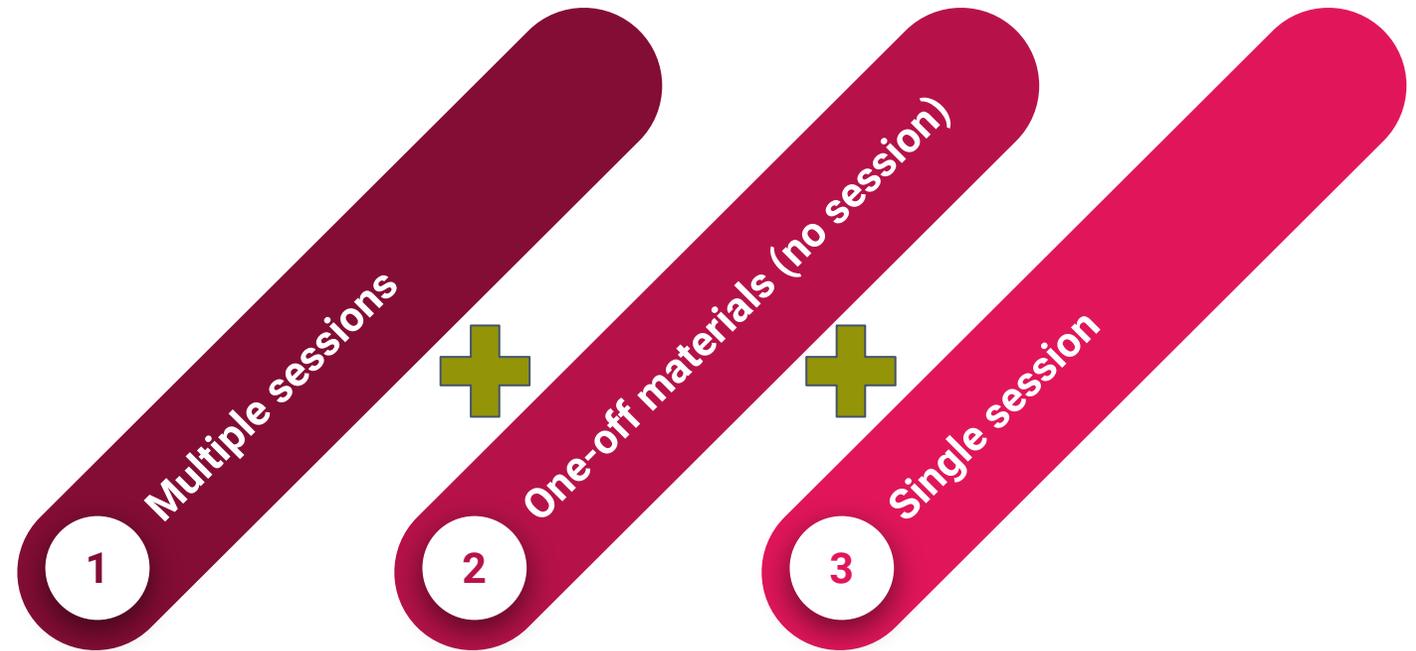
- **95% lack of body image resources** within their sport organization
 - Little knowledge about body image and eating disorders
 - Most of the current understandings derive from education on diet and nutrition (e.g., National Coaching Certification Program [NCCP] Sport Nutrition module, Obesity Canada, sport nutritionists)
- Stakeholder feedback generally **supported the designs** and **methods** of the interventions analyzed in the scoping review



Stakeholder results

Effective Lesson Planning

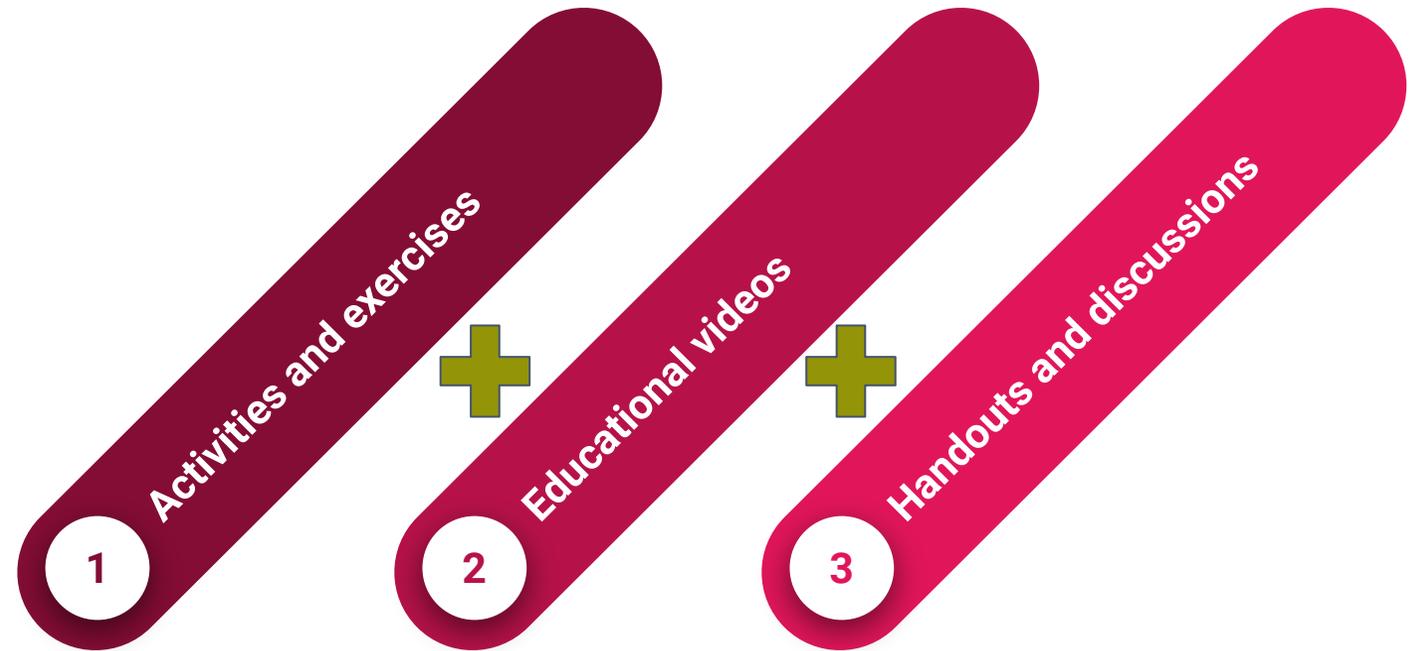
In your sport organization, what has been used or what might be ideal as a lesson plan template?



Stakeholder results

Delivery Methods

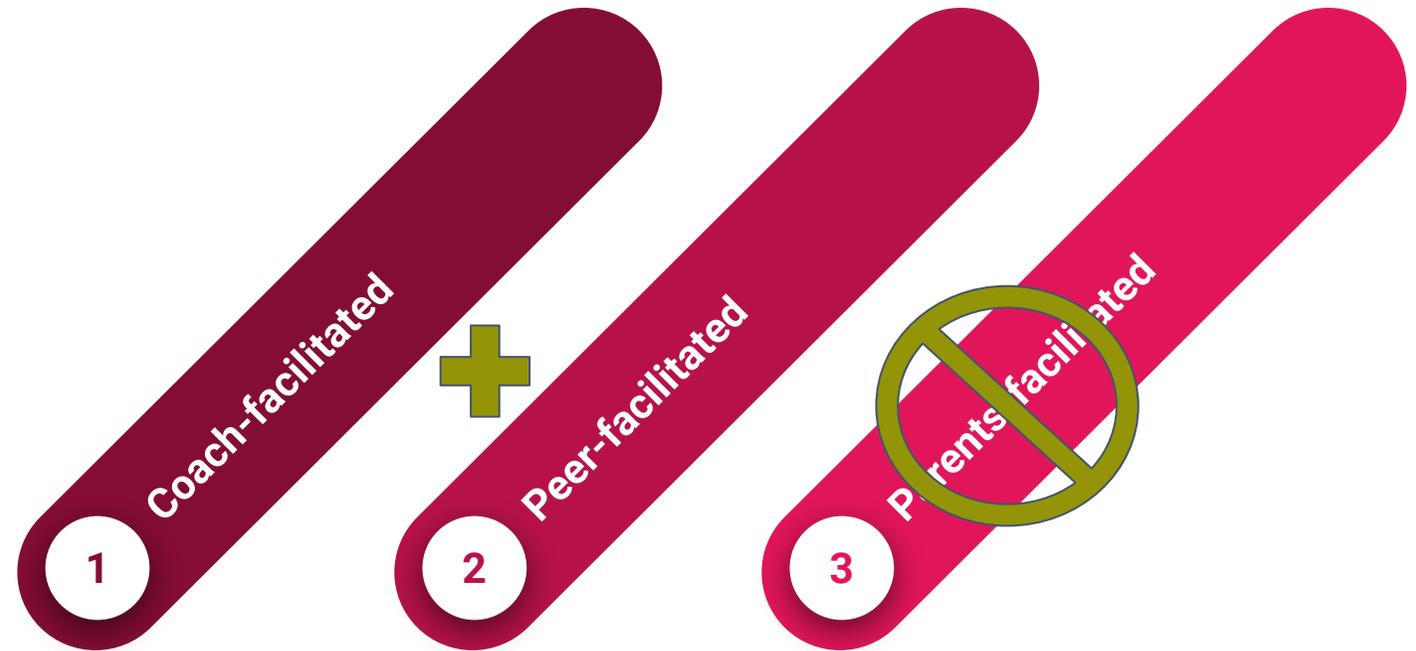
What facilitation methods have you used in your sport organization or might be ideal for the proposed program?



Stakeholder results

Facilitators

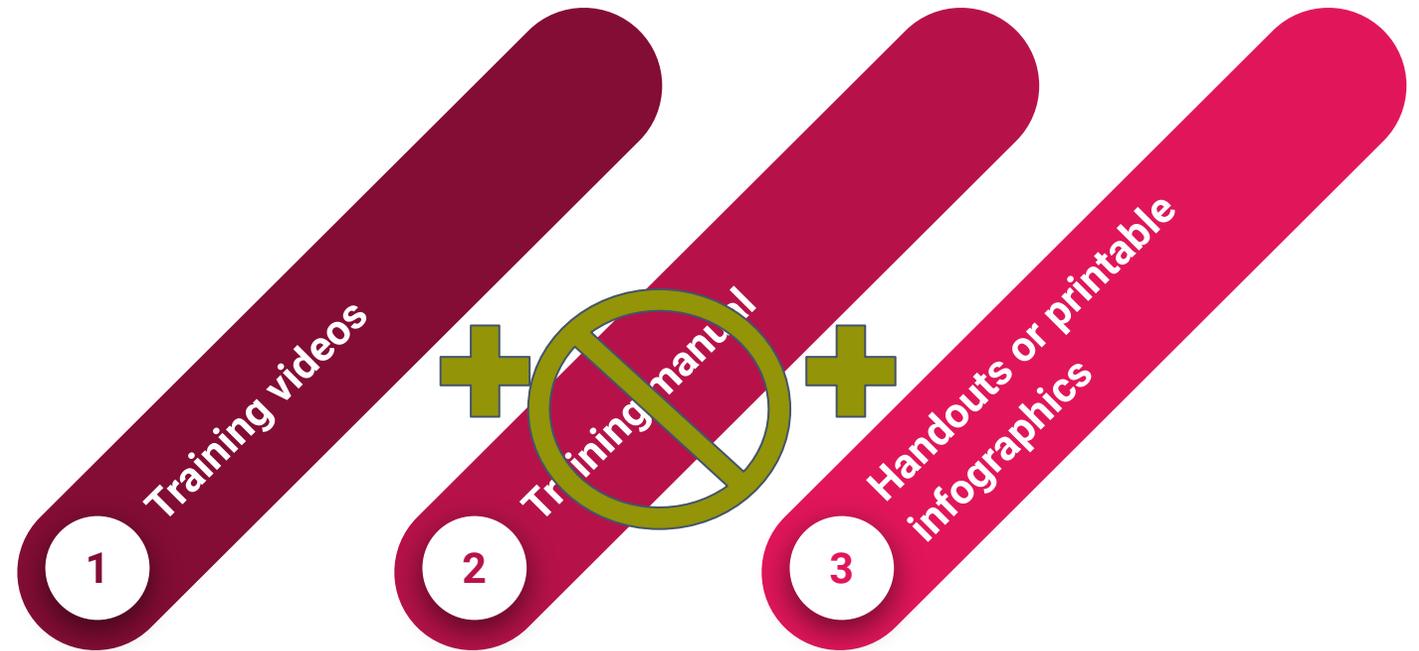
In your sport organization, who has facilitated your athletic programs or who might be the ideal facilitator of the proposed program?



Stakeholder results

Facilitator Training

What method of facilitator training might be preferred in your sport organization?



Healthy Norms & Pressure to be Thin

May include comparing different types of body ideals, evaluating media influences, and exploring eating attitudes and beliefs about food, exercise, weight, and shape.

Eating Disorder Knowledge

May include information on the Female Athlete Triad, etiology of ED, biological/physiological/psychological factors and treatment options.

Physical Activity Enjoyment & Life Balance

May include promoting activity and sport for fun, balance between sport and life, and developing a healthy identity with sport.

Motivation & Goal Setting

May include how to set goals, evaluating goals, and synchronizing goals with the coach.

Nutrition Knowledge

May include the role of carbs/proteins/fats, liquid needs, growth and development, and using a positive approach to food.

Sport Science

May include training principles, injury and prevention knowledge, and how to develop healthy activity habits.

Self-Esteem

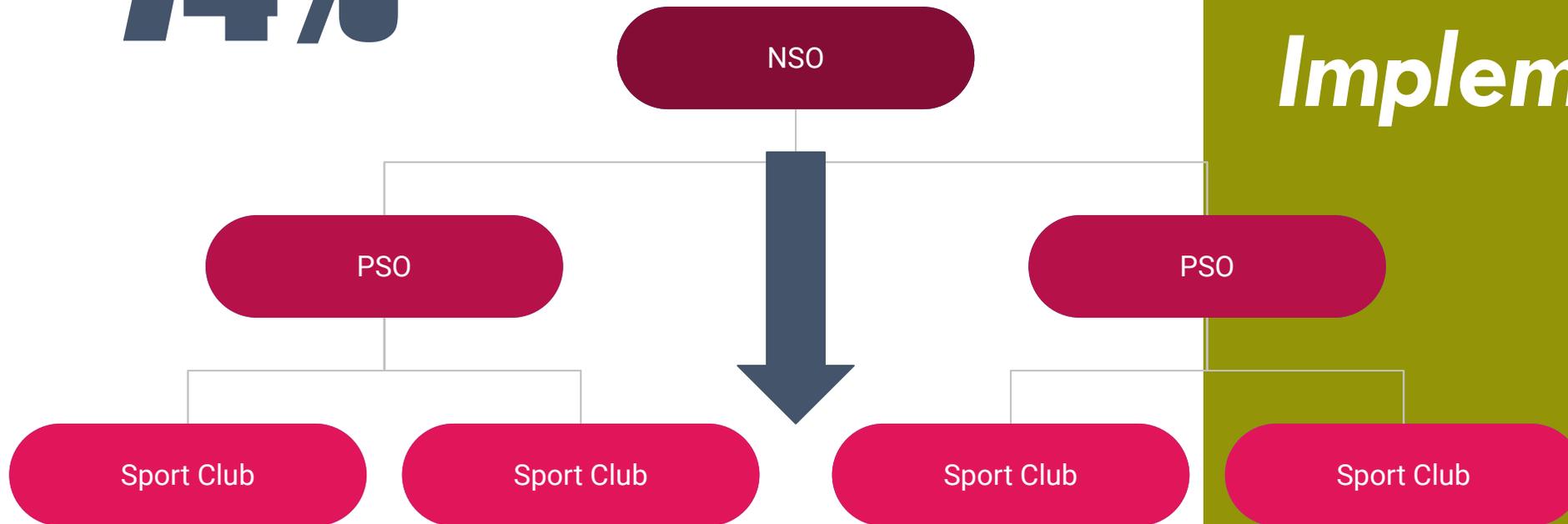
May include factors that affect self-esteem, promoting body acceptance and self-confidence, and helping participants to develop positive concept of self.

Mindfulness & Mental Training

May include stress management, problem solving skills, coping skills, self-talk, mindful practices, and self-compassion training.

Stakeholder results

74%



Dissemination & Implementation

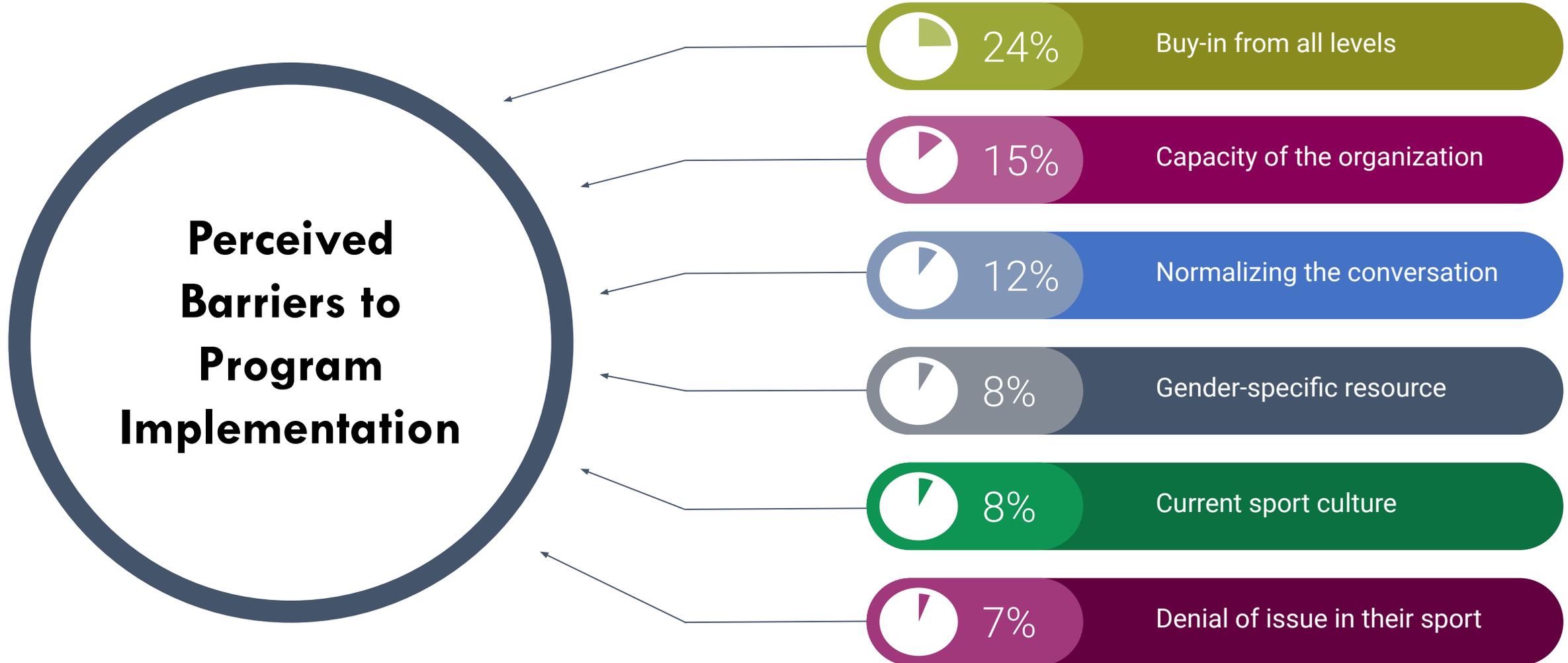
Stakeholder results

21%

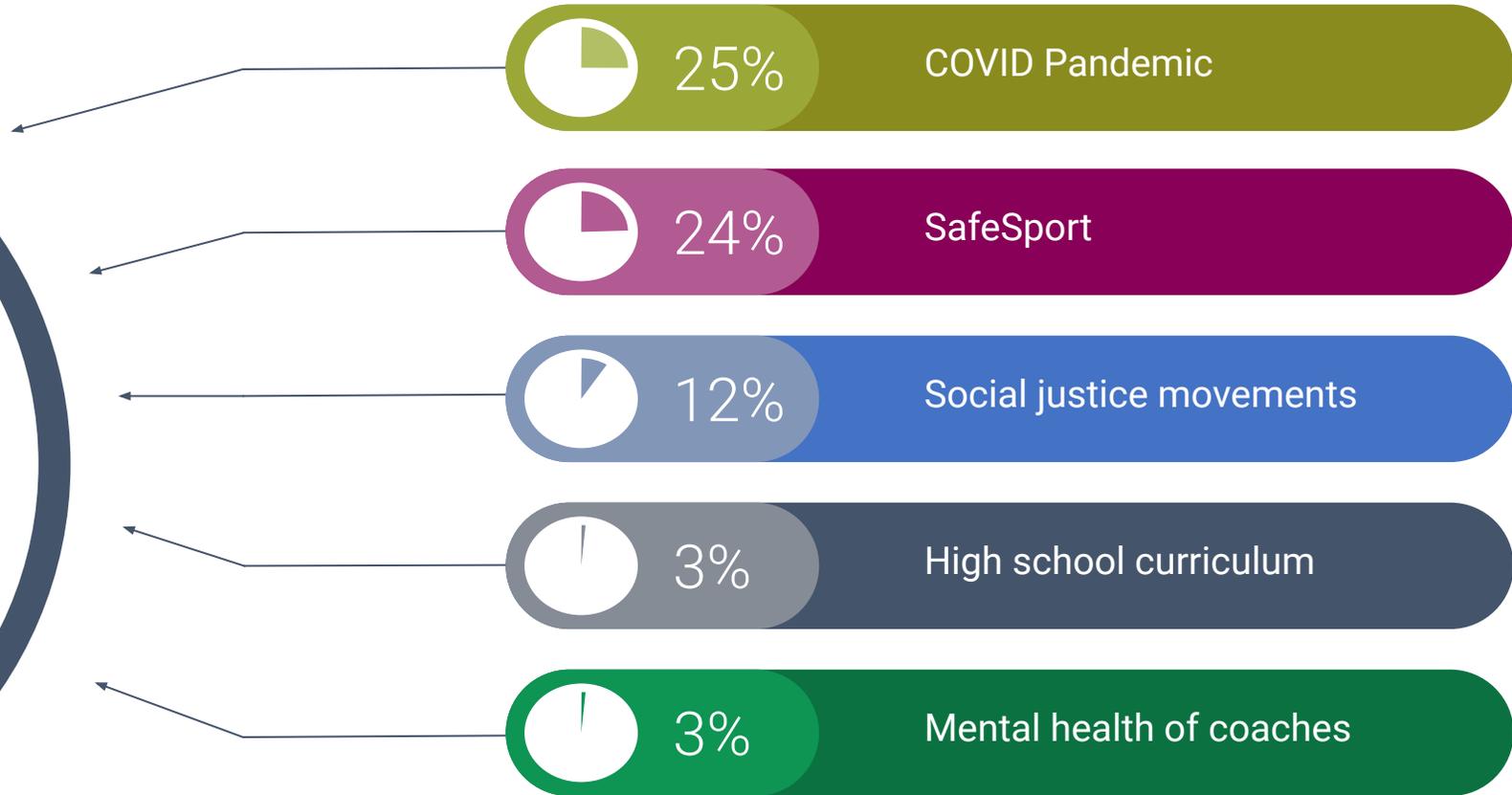
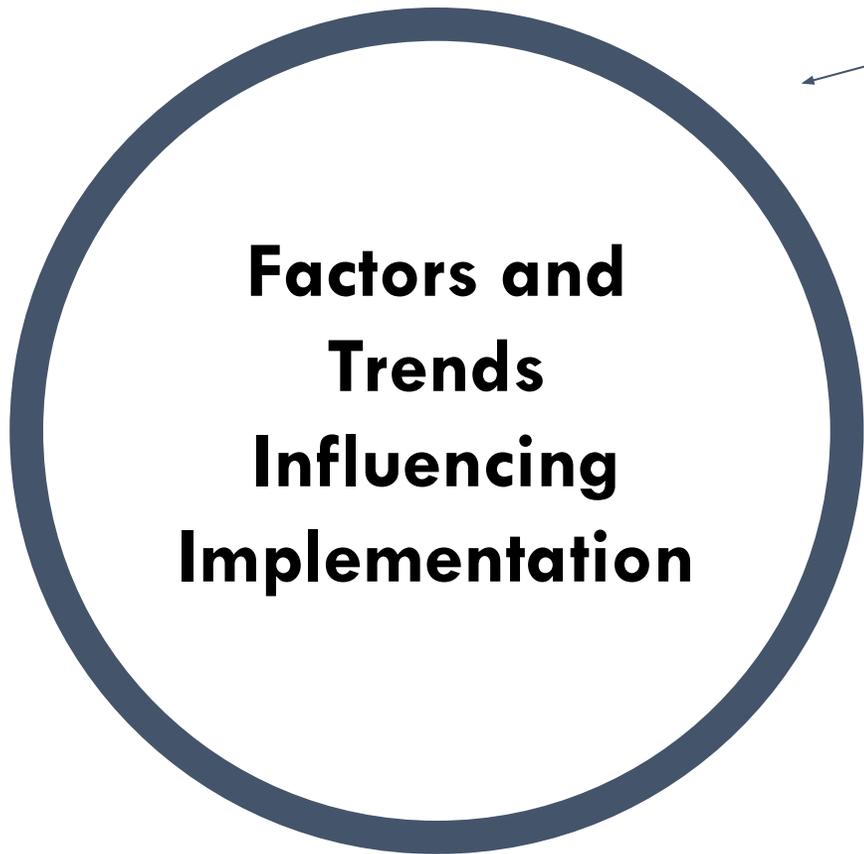


Dissemination & Implementation

Stakeholder results



Stakeholder results



Discussion: scoping review

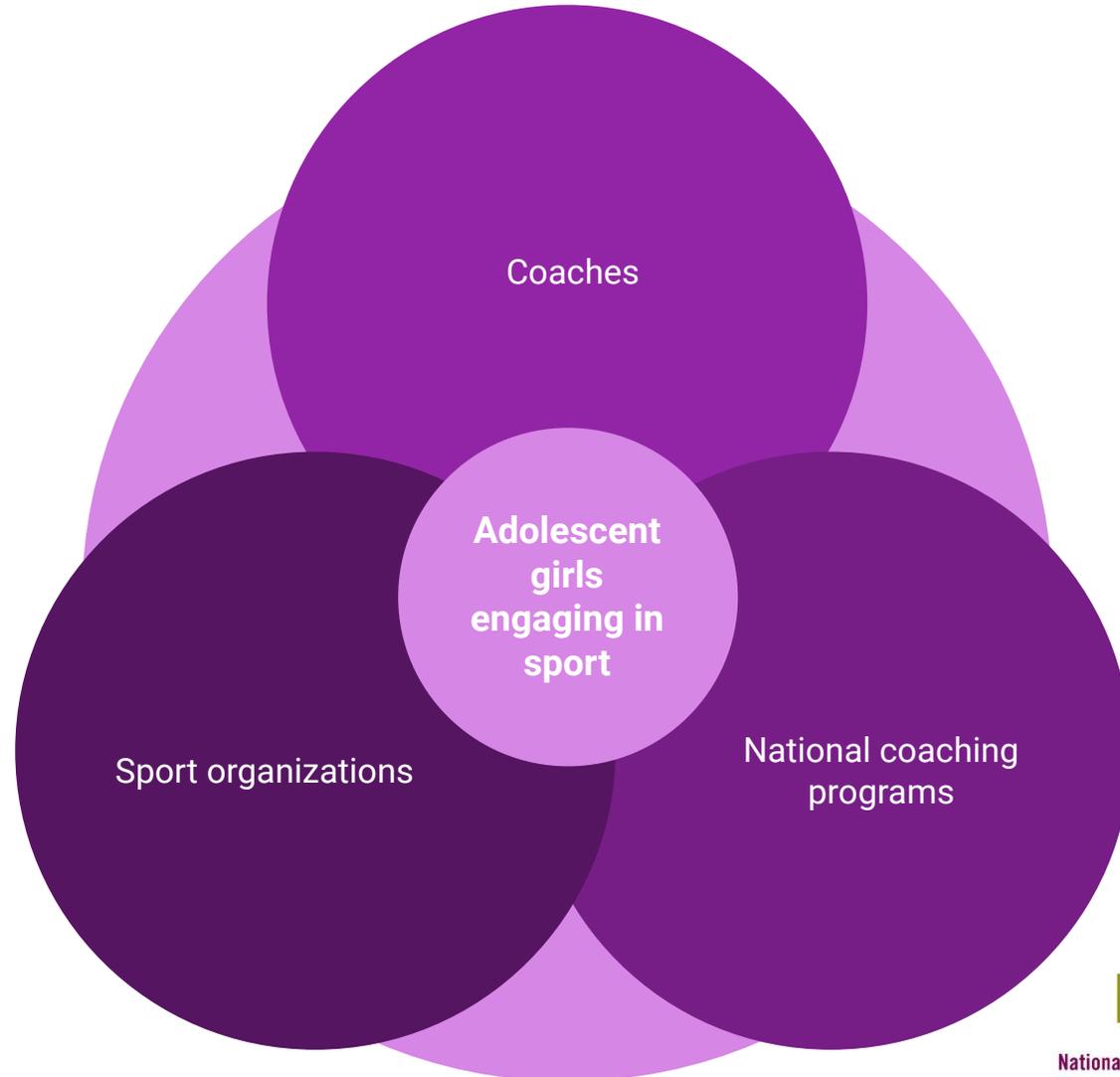
1. There appears to be no clear pattern of results favouring any one particular method of delivering programming and greater clarity is needed about the functional components of these interventions
2. Hence, program planners might want to consider practice-based evidence and the practical circumstances in which we'll be delivering the program

Over the last two years:

- What lessons have you learned from delivering programs?
- What has been effective?
- What policy, regulatory, or organizational shifts have started to happen?

Discussion: coaches & the sport environment

1. Coaches report little confidence in initiating conversations around body image; worried about harm but can either actively do so or passively do so (from a lack of action)
2. Organizations rely predominantly on volunteer coaches who have very little training in their sport and effective practices
3. Train-the-trainer: delivered through existing national coaching programs like the NCCP to garner top-down ownership & accountability
4. Provide body image resources at multiple levels of the sport organization (athletes, parents, admin, referees) to target change at multiple levels of the environment



Discussion: curriculum

1. physical activity enjoyment & life balance ranked first:
 - a. encouraging athletes to view sports as a lifetime pursuit, which includes caring for their bodies over time;
 - b. encouraging flexibility in scheduling workouts and training sessions and;
 - c. encouraging athletes to strive for balance between sport and other areas of their life
2. Stakeholders from aesthetic sports ranked topics like **healthy norms and the pressure to be thin** and **eating disorder knowledge** with a greater level of importance; representatives from non-aesthetic sports had **mindfulness & mental training** and **nutrition knowledge** as higher

As you reflect on these curriculum topics, what comes up for you?

AE next steps

Strengths

- Inclusion of stakeholders across all steps of the protocol
- Partnership between research and practice on the mental health side to ensure we have a safety net around risk for those athletes who are more affected, even though our goal is prevention
- Clear need for this program in girls' sport; proposed program has the capacity to fulfil several knowledge gaps and support need for body image resources across sport

Opportunities for growth

- Continue to involve Canadian sport organizations directly in the work; “buy in” is challenging given that partnerships are time consuming to foster
- In many sports, body weight and/or aesthetic appearance are still considered central to athletic success
- The sport landscape is changing (SafeSport, COVID-19); need to ride the momentum

WWW.ATHLETESEMBODIED.CA

Athletes Embodied

Every body is a sport body.

Home Why Athletes Embodied? Education Learning Opportunities Resources Get Involved Contact Us

Ambassador Program

Our Ambassadors

Our Impact

By partnering with sport organizations and leaders in disordered eating prevention, we aim to build safe and healthy sport environments for girls in youth sport.



Who are we?

Athletes Embodied is designed by leaders in the field of body image, sport and mental health in Canada. This collaboration allows the project to

- Our website will be a hub for all things Athletes Embodied.
- On our website you will find:
 - Background information
 - Our Impact
 - Our future programming/education on body image
 - Workshops, presentations and our webinars
 - Resources: publications & terms to know
 - A platform for ambassadors
 - How to contact us, and NEDIC information
- Our Ambassador Program
 - Opportunity to become an athletes embodied ambassador to help create an inclusive sporting environment for all generations to come.

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Acknowledgements



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Mitacs Accelerate Program

Collaborators

The Body Image and Health Research Lab
 @bihresearch

The Mental and Physical Activity Research Centre
 @MPARC_UofT

SSHRC

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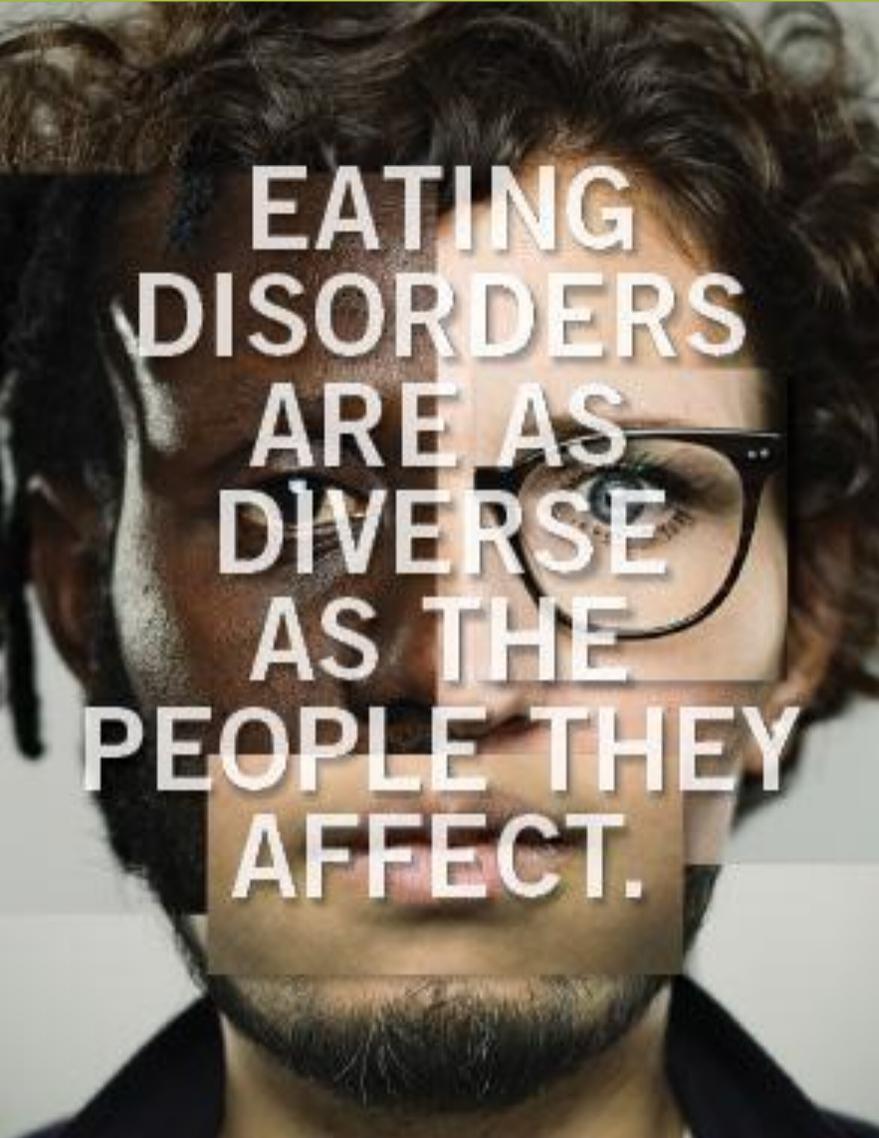
Resources

EDs - general info

- [NEDIC](#)
 - [Myths and truths about dieting and weight loss](#)
 - [Guide for supporting a friend who might be struggling with an ED](#)
 - [Adolescent eating disorder experience and the stages of change](#)
 - [A parents' and caregivers' guide to supporting youth with eating disorders](#)
- [Kelty Eating Disorders Resource Library](#)
- [“Sick Enough”](#) by Jennifer Gaudiani

Training for healthcare providers

- [Academy for Eating Disorders: A Guide to Medical Care](#)
- [Eating Disorder Sensitive: Education for Dietitians](#)
- [CBT-E \(CREDO, Oxford University\)](#)
- [Sheena's Place webinars](#)



EATING
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www.nedic.ca

This devastating illness strikes all types of people in different ways, often secretly – sometimes fatally. But talking saves lives.

Call 1-866-NEDIC-20 or 416-340-4156 for support and information.

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Information Centre

It's not our bodies
that need changing.
It's our attitudes.™

TELEPHONE HELPLINE &
ONLINE INSTANT CHAT:

www.nedic.ca

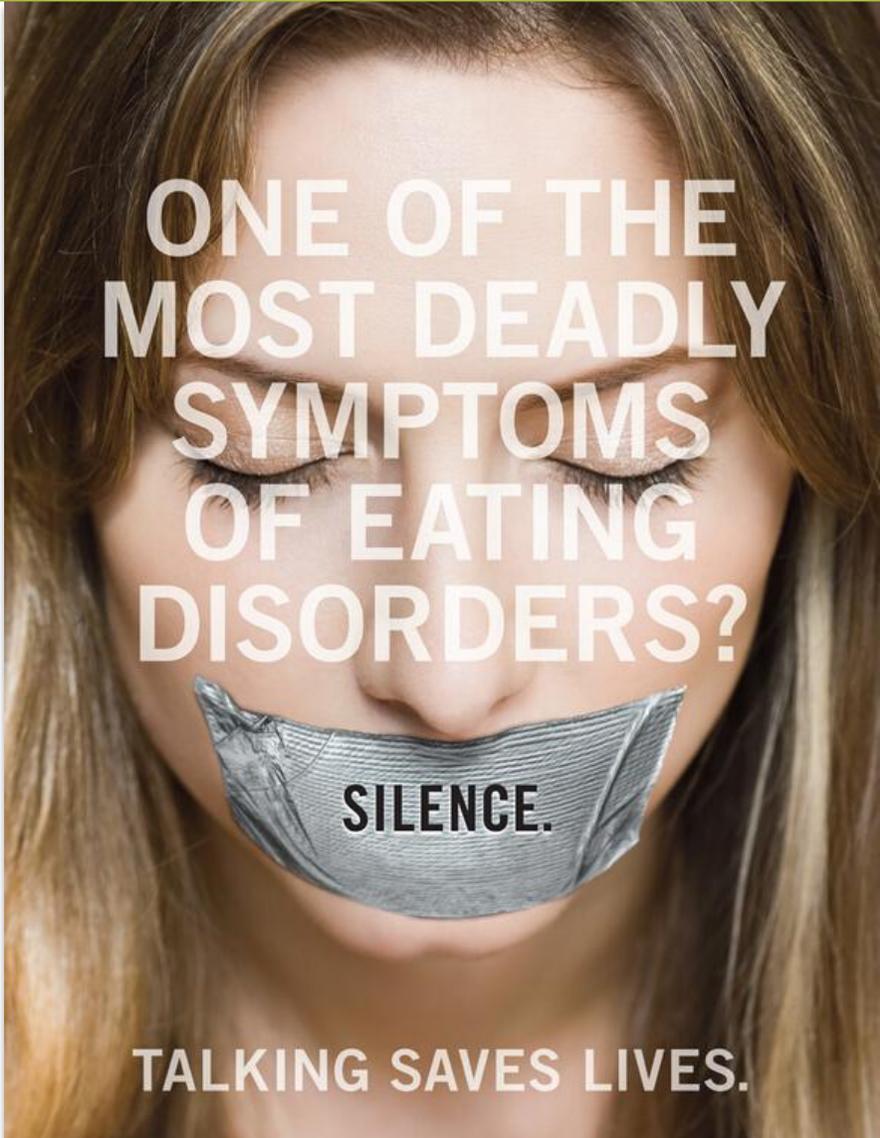
1-866-633-4220

M-Th 9:00am - 9:00pm EST

F 9:00am - 5:00pm EST

WEEKEND INSTANT CHAT:

Sat & Sun 11:00am - 3:00pm EST



ONE OF THE
MOST DEADLY
SYMPTOMS
OF EATING
DISORDERS?

SILENCE.

TALKING SAVES LIVES.

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www.nedic.ca

If you or someone you know is struggling with an eating disorder, call
1-866-633-4220 (416-340-4156 in Toronto)

for support and understanding.

