

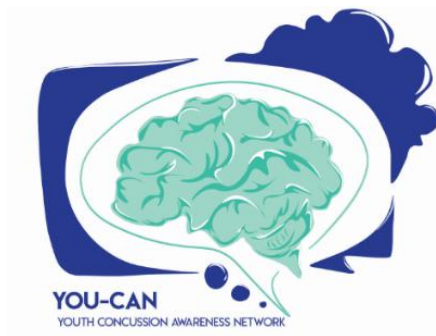
To view an archived recording of this presentation please click the following link:

<https://youtu.be/y-0MpHO3RA0>

Please scroll down this file to view a copy of the slides from the session.

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You-CAN: The Youth Concussion Awareness Network

Peer-led concussion education in Canadian Schools

Nick Reed *PhD, MScOT, OT Reg (Ont.)*

PHO Rounds

Sept 11, 2025



Occupational Science
& Occupational Therapy
UNIVERSITY OF TORONTO



TRANSCENDENT
CONCUSSION RESEARCH PROGRAM

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DISCLOSURES

Nick Reed has no relevant financial relationships with ineligible companies to disclose.

-He holds a Canada Research Chair (Tire 2) in Pediatric Concussion and has grant/research support from the Social Science Health Research Council, Canadian Institutes of Health Research, Special Olympics Canada, Ontario Brain Institute, Ontario SPOR Support Unit

-He acts as the Chair and Executive Board Member of the International Pediatric Brain Injury Society (IPBIS)

Objectives

1. **Describe** a novel approach to concussion education in Canadian high schools
2. **Promote** the uptake of this program in new contexts and communities
3. **Utilize** concepts from this program to develop and implement novel approaches to concussion education

Background

- Concussions in youth **increased annually by 10.3%** from 2005-2014 in Canada.
- Concussions are **underreported** in youth due to lack of knowledge, social environment, perceived outcomes of reporting, perceived norms, and self-efficacy.
- Social participation after a concussion was impacted by a **lack of understanding about concussions from their peers.**

**Peers are strongly influenced by their social networks
Peer education can play a large role in student knowledge, attitudes,
and behaviours**

Youth Concussion Awareness Network (You-CAN)



Learn More: <https://youcanprogram.weebly.com/>




STUDY PROTOCOL

Open Access

The youth concussion awareness network (You-CAN) - a school-based peer-led intervention to improve concussion reporting and social support: the protocol for a cluster randomized trial



Andrea Hickling^{1,2}, Kylie D. Mallory^{1,3}, Katherine E. Wilson¹, Rosephine Del Fernandes¹, Pamela Fuselli⁴, Nick Reed^{1,2,3*}  and Youth Concussion Awareness Network (You-CAN) Team

Abstract

Background: Concussion prevalence is increasing in the pediatric population, and is a matter of public health concern. Concussion symptoms can be physical, cognitive, emotional and behavioural, and last longer in high school aged youth than adults. Concussions are underreported in youth due to their lack of knowledge, social environment, perceived outcomes of reporting, norms, and self-efficacy. The Youth Concussion Awareness Network (You-CAN) is a school-based peer-led program designed to increase high school students' intent to report a concussion, and provide social support to a peer. This study aims to investigate whether participation in You-CAN, a program grounded in service learning principles, impacts concussion knowledge, attitudes, intent to report a suspected concussion to an adult, and intent to provide social support to a peer. Secondary aims include assessing the implementation fidelity and acceptability of the intervention.

Methods: This longitudinal study will use a cluster randomized trial design. Three high schools from six randomly selected Canadian school boards will participate and be randomized to three study arms: (1) You-CAN led by school staff; (2) You-CAN led by school staff and research team; and (3) untreated comparison group. Intervention arms 1 and 2 will deliver the You-CAN program and create a Concussion Council at their school. The Concussion Council will deliver a concussion

[\(You-CAN - Home\)](#)

The Youth Concussion Awareness Network (You-CAN) - A School-Based Peer-Led Intervention to Improve Concussion Reporting and Social Support: The Protocol for a Cluster Randomized Trial

Andrea Hickling, Kylie D. Mallory, Katherine E. Wilson,
Rosephine Del Fernandes, Nick Reed & The You-CAN Team

Published in *BMC Public Health*

5396 views to date

19 Altmetric

Collaborators listed in authorship



To describe the protocol for study that will implement
and evaluate the Youth Concussion Awareness Network

Objectives

The main objectives of You-CAN are to :

- 1) **Know** when they are experiencing concussion symptoms
- 2) **Ask for support** from others when they have a concussion
- 3) **Support** their friends and classmates who have a concussion



Support youth to help youth!

You-CAN Intervention

The You-CAN program uses the IPARD model of service learning

I

Investigate need for concussion awareness and create councils to address change

P

Plan & Prepare for the Concussion Awareness Campaign during regular council meetings

A

Act by leading a week-long Concussion Awareness Campaign

R

Reflect on experiences as a council member with the Research Team

D

Demonstrate and celebrate impact at the Rowan Stringer Concussion Awareness Showcase

You-CAN Intervention



Create a Council: Bring together a group of students in your school who are passionate about concussion awareness and helping others.



Share Concussion Resources: Run a week long concussion awareness campaign in your school.



Showcase Your Work: Share and celebrate your campaign with other You-CAN schools from across Canada.

You-CAN Intervention



September - December

Create a
Concussion Council

January - March

Run a Concussion
Awareness Campaign

April - June

Celebrate campaign at
the Showcase



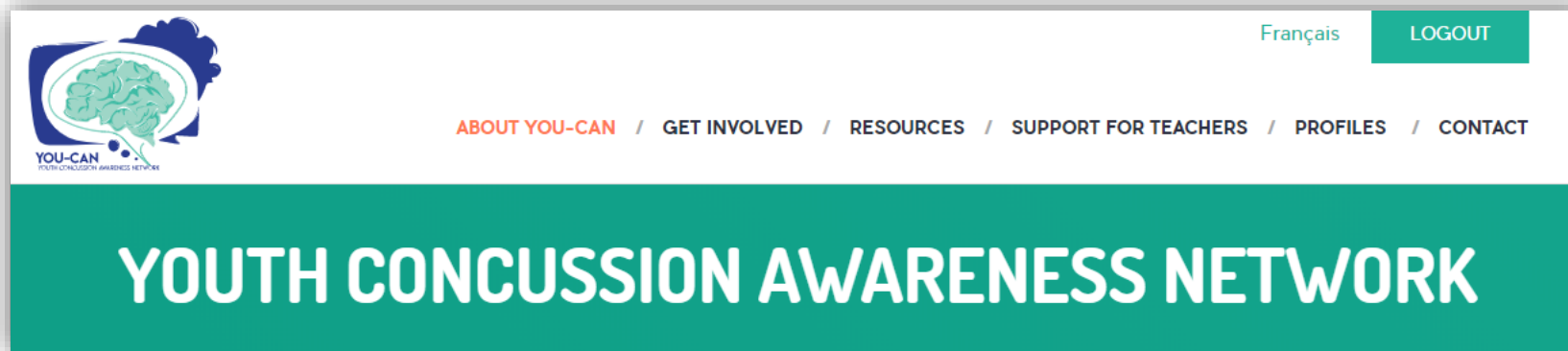
You-CAN Intervention

- All participating schools have access to the **You-CAN web portal**




Portal Content

1. Instructions about the project and how to participate
2. Data storage and communication
3. Support for teachers/school staff
4. Up-to-date, evidence-based resources



1. Instructions about the project and how to participate

ABOUT THE PROJECT



Youth Concussion Awareness Network

WHAT IS YOU-CAN?

The goal of the Youth Concussion Awareness Network (You-CAN) is to provide other high school students with the concussion knowledge and resources to help them:

- Know when they have a concussion
- Ask for support when they have a concussion
- Support their peers who have a concussion

To do this, it is important for students to work together! By doing this, we can create a supportive community for students who have had a concussion.

HOW CAN YOU MAKE A DIFFERENCE?

- High schools from all over Canada that are part of You-CAN will create a Concussion Council in their school.
- The Concussion Council will help other students in their school by sharing information about concussions and provide them with concussion resources that they can use at school.
- In February/March, the Concussion Council will create and host a week-long Concussion Awareness Campaign in their school.
- The Concussion Council will be able to share their work with other councils from high schools across Canada by participating in the Rowan Stringer Concussion Awareness Campaign Showcase in April.

YEAR AT A GLANCE

SEPTEMBER & OCTOBER

- Build your council
- Hold your [first council meeting](#)



NOVEMBER

- Take a look at the [resources section](#) to learn about concussions
- Start thinking about your concussion awareness campaign. [Favourite](#) the resources that you plan to use in your concussion awareness campaign
- You can find ideas for your concussion awareness campaign [here](#).
- All students in your school will be invited to complete a questionnaire about concussions.



DECEMBER

- Find out if your school has a concussion policy and what it is
- Start to create a plan for your concussion awareness campaign



JANUARY

- Finish your campaign plan and send in your [Campaign Details](#) to the research team.

2. Data storage and methods for communication

CONTACT

Have questions about You-CAN? Contact the You-CAN team.

No question is a silly question. If there is anything that your council is unsure about, don't hesitate to contact the team by filling out the form below.

This page is also where you will go to launch video call with the You-CAN team for your monthly council meetings. Schedule a meeting with the You-CAN team and click 'start video call' to join the meeting.

You-CAN

150 Kilgour Road
Toronto, ON, M4G 1R8

youcan@hollandbloorview.ca

START VIDEO CALL

☐ Teacher ☐ Student

SUBMIT

MY FILES

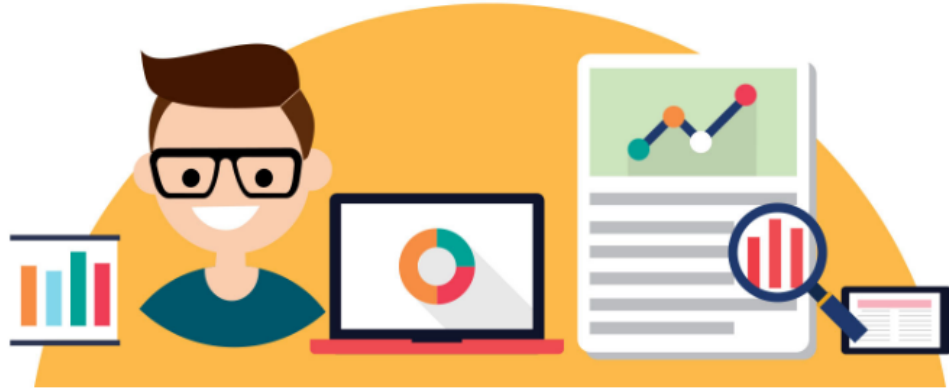
This is a place for you to upload files related to your council. Examples of things to store include: meeting minutes, images of your school's progress, documents with details about your concussion awareness campaign, and/or PowerPoint presentations.

No files upload.

ADD NEW FILE

3. Support for School Staff

SUPPORT FOR TEACHERS



Every school must have a school staff member on their council to be a part of You-CAN. This could be a teacher, guidance counsellor, principal, vice-principal, etc. You-CAN is intended to be led by students. The role of the school staff member may change depending on the needs of the Concussion Council. The key role of the school staff member is to make sure that students are (1) following their school policies and (2) staying on track of the [timelines](#).

We have created a You-CAN School Staff Handbook to provide you with resources to help start You-CAN at your school:

[YOU-CAN SCHOOL STAFF HANDBOOK](#)

Share this handbook with school staff members to help them:

1. Understand their role as the You-CAN school staff member
2. Provide strategies to start a Concussion Council at your school
3. Act as a planning tool to help your school stay on track with You-CAN throughout the school year, and
4. Guide your ongoing support of You-CAN.

In September, the You-CAN research team will **host a webinar** for all school staff members who are part of You-CAN. The You-CAN research team will email you the date and time of these webinars. This will be an opportunity to talk more about the You-CAN program, expand on the material in the School Staff Handbook, review the timelines, and ask questions.

Thank you to all school staff members for helping to make You-CAN possible and for improving concussion awareness and peer-led education at your school!

4. Up-to-date, evidence-based and youth-facing resources

RESOURCES & TOOLS

Filter by resource type: Alphabetical (A-Z) Select tags SEARCH GRID VIEW LIST VIEW

6 things you should know about concussions

HEADS UP CONCUSSION

BRAIN 101

MINDS MATTER THE TRUTH ON CONCUSSIONS

FAQ COGNITIVE REST

COGNITIVE REST AFTER A CONCUSSION (Q&A)

A question and answer video that highlights the importance of cognitive rest after a concussion.

ADD TO FAVOURITES

Concussion Management

6 THINGS YOU SHOULD KNOW ABOUT CONCUSSIONS

WHAT IS A CONCUSSION

CONCUSSION MANAGEMENT

SIGNS & SYMPTOMS

SOCIAL SUPPORT

WHAT IS A CONCUSSION

HOW CONCUSSIONS HAPPEN

CONCUSSION MANAGEMENT

SIGNS & SYMPTOMS

CONCUSSION GUIDELINES FOR THE ATHLETE

A handout that provides concussion information on identification, signs and symptoms and guidelines for return to sport.

ADD TO FAVOURITES

What is a Concussion

How Concussions Happen

Signs & Symptoms

Return to School

Return to Sport

CONCUSSIONS WHAT THEY ARE WHAT TO DO

CONCUSSION MANAGEMENT AND RETURN TO LEARN

Dr. Mike Evans leads you through a video on concussion education, management, and

ADD TO FAVOURITES

Concussion Management

Signs & Symptoms

Return to School

Return to Sport

CONCUSSION MYTHS VS. FACTS

An infographic that addresses common myths and misconceptions about concussions.

ADD TO FAVOURITES

What is a Concussion

CONCUSSION DO'S AND DONT'S: THE FIRST FEW DAYS

A handout highlighting the 'do's and don'ts' of concussion management within the first few days of recovery.

ADD TO FAVOURITES

Concussion Management

Finding the Concussion Resources



Online concussion resources for Canadian high school aged youth: A systematic search strategy

Kylie D. Mallory^{a,b}, Andrea Hickling^{b,c}, Katherine E. Wilson^b, and Nick Reed^{a,b,c}

^aRehabilitation Sciences Institute, Faculty of Medicine, University of Toronto, Toronto, Canada; ^bBloorview Research Institute, Holland Bloorview Kids Rehabilitation Hospital, Toronto, Canada; ^cDepartment of Occupational Science and Occupational Therapy, Faculty of Medicine, University of Toronto, Toronto, Canada

ABSTRACT

Objective: To identify online concussion resources that are suitable for Canadian youth and accurate according to the current International Consensus Statement on Concussion in Sport.

Methods: A five-phased systematic search strategy was used to identify concussion resources. This included 1. searching key Canadian stakeholder websites (sport organizations, injury prevention groups, children's hospitals, governments, public health agencies, and physical and health education associations), 2. pediatric concussion expert consultation, 3. applying inclusion and exclusion criteria, 4. reviewing content for accuracy according to the consensus statement and 5. evaluating resources for readability, usability and suitability.

Results: A total of 456 resources were initially identified however, only 32 met the final criteria. Across all resources, 34.6% ($n=109$) were excluded as they were not designed primarily for youth. Among resources reviewed for content accuracy according to the consensus statement, 53.1% ($n=51$) were excluded. When evaluating resources for readability, usability and suitability, 28.5% ($n=13$) were excluded as they were not suitable for youth.

Implications: Most concussion resources available online are not written for youth and do not contain accurate information on pediatric concussion. The identified evidence-based resources can ensure that accurate and suitable information is provided to youth in order to enhance their concussion knowledge.

ARTICLE HISTORY

Received 4 April 2019

Revised 23 September 2019

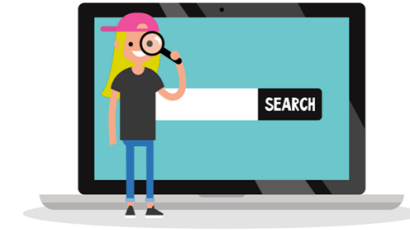
Accepted 10 November 2019

KEYWORDS

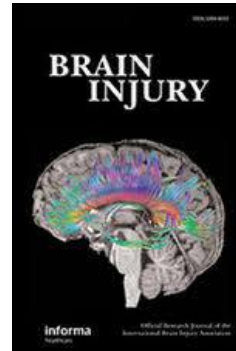
Concussion; youth; brain injury; education; internet

[\(You-CAN - Home\)](#)

Online concussion resources for Canadian high school aged youth: A systematic search strategy



Kylie D. Mallory, Andrea Hickling, Katherine E. Wilson & Nick Reed



Published in *Brain Injury*

Open access

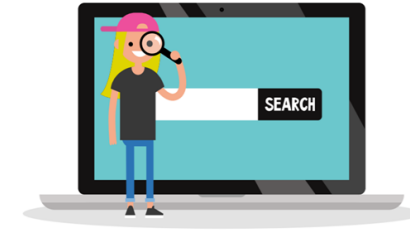
3,709 views to date

21 Altmetric



To identify online concussion resources that are
suitable for Canadian youth and accurate according to
the *Consensus Statement on Concussion in Sport*

Online concussion resources for Canadian high school aged youth: A systematic search strategy



Methods: A five-phased systematic search strategy was used to identify concussion resources.

1. Searched Public Websites
(hospitals, government etc.)

2. Consulted Pediatric
Concussion Experts

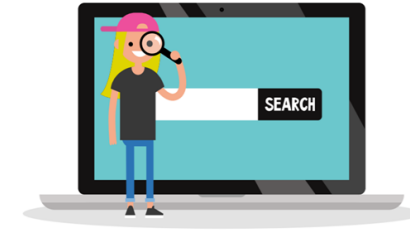
3. Applied Inclusion and
Exclusion Criteria

3. Reviewed Found Content
for Accuracy

5. Material Evaluation
(readability, usability, suitability)



Online concussion resources for Canadian high school aged youth: A systematic search strategy



Identified **456** concussion resources
with only **32** included

Online concussion resources need to **continue to be updated** to reflect the most accurate information, and written and **designed for youth** to fill the concussion knowledge gap

4. Up-to-date, evidence-based and youth-facing resources

RESOURCES & TOOLS

Filter by resource type: Alphabetical (A-Z) Select tags SEARCH GRID VIEW LIST VIEW

6 things you should know about concussions

HEADS UP CONCUSSION

BRAIN 101

MINDS MATTER THE TRUTH ON CONCUSSIONS

FAQ COGNITIVE REST

COGNITIVE REST AFTER A CONCUSSION (Q&A)

6 THINGS YOU SHOULD KNOW ABOUT CONCUSSIONS

What is a Concussion **Concussion Management** **Signs & Symptoms** **Social Support**

What is a Concussion **How Concussions Happen** **Concussion Management** **Signs & Symptoms**

What is a Concussion **Concussion Management**

Concussion OUs and OUs: The first few days of recovery

Concussion guide for ATHLETES

CONCUSSIONS WHAT THEY ARE WHAT TO DO

Concussion myths vs. facts

CONCUSSION DO'S AND DONT'S: THE FIRST FEW DAYS

CONCUSSION GUIDELINES FOR THE ATHLETE

CONCUSSION MANAGEMENT AND RETURN TO LEARN

CONCUSSION MYTHS VS. FACTS

ACCURATE AND FOR YOUTH

Concussion Awareness Campaign

- Councils create a **week-long** awareness campaign
- Students use the **content from resources** on the web portal or they can create their own if approved by research team
- Students are **encouraged to be creative and come up with initiatives** that they feel would work at their school



Concussion Awareness Campaign



Make a Concussion Council social media page with fun educational posts about concussion using some of our resources or check out the pre-made pictures below!



Put up fun facts and quotes on monitors or TV screens around your school



Print out posters & infographics from our Resources page or design your own to post around your school



Get creative and make a video or larger banner to display in the halls



Create an interactive activity for other students! You can have students share their experience with concussion or a friend who has had one



Create a game of Concussion Trivia and host it before school or during lunch

So many options! Campaigns will look different depending on school wants/needs

The Showcase

- A half-day event that will take place online through Zoom
- Named in honour and remembrance of Rowan Stringer
- Schools share and celebrate their awareness campaign with other participating Canadian schools
- Every school has **5-7 minutes** to present highlights from their campaign
- We made a **presentation template** that lives on the web portal (to make it easy)



Exploring Social Support through Lived Experiences



Social support during youth concussion recovery

Helena Kita^a, Kylie D. Mallory^{a,b}, Andrea Hickling^{a,c}, Katherine E. Wilson^a, Emily Kroshus^{d,e}, and Nick Reed^{a,b,c}

^aConcussion Centre, Bloorview Research Institute, Holland Bloorview Kids Rehabilitation Hospital, Toronto, Canada; ^bRehabilitation Sciences Institute, Faculty of Medicine, University of Toronto, Toronto, Canada; ^cDepartment of Occupational Science and Occupational Therapy, Faculty of Medicine, University of Toronto, Toronto, Canada; ^dCenter for Child Health, Behavior and Development, Seattle Children's Research Institute, Seattle, Washington, USA; ^eDepartment of Pediatrics, University of Washington, Seattle, Washington, USA

ABSTRACT

Purpose: We explored the lived experience of high-school aged girls receiving social support during concussion recovery to better understand (1) how they define meaningful social support and barriers/facilitators to receiving it; (2) who provides that support; and (3) the role of peers.

Methods: In person, semi-structured interviews were conducted with 10 girls (aged 14–19 years) with a personal history of concussion.

Results: Close friends, youth with personal history of concussion, and parents were identified as key providers of meaningful social support during concussion recovery. Participants identified specific examples of support provided by each group. Close friends built a sense of social inclusion that mitigated feelings of social isolation. Youth with a personal history of concussion used their lived experiences to communicate empathy and validate the participant's challenges. Parents assisted with practical challenges (e.g. accessing accommodations) by leveraging their "adult power".

Participants identified that lack of understanding of their lived experiences was a key barrier to receiving support. They proposed solutions focused on education initiatives highlighting personal accounts from youth with concussion, and specific examples of how peers can help.

Conclusions: Fostering social support may require strategies tailored to each group of key providers as they mitigate different challenges in recovery.

ARTICLE HISTORY

Received 21 November 2019

Revised 19 March 2020

Accepted 5 April 2020

KEYWORDS

Concussion; social support; youth; pediatric; peer support

[\(You-CAN - Home\)](#)

Social support during youth concussion recovery



Helena Kita, Kylie D. Mallory, Andrea Hickling,
Katherine E. Wilson, Emily Kroshus & Nick Reed

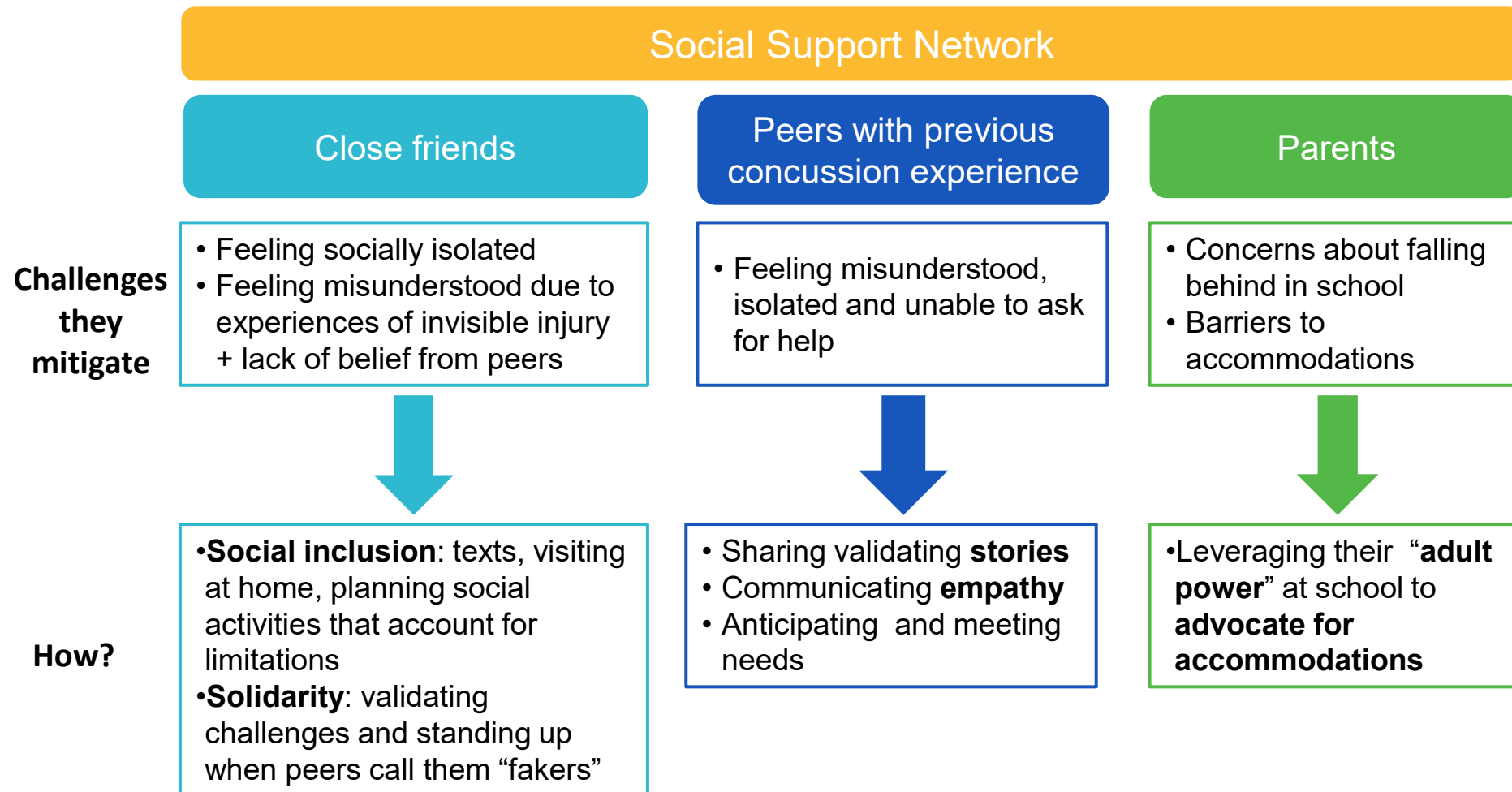
Published in *Brain Injury* - Open access
6,596 views to date - 30 Altmetric



To explore the lived experiences of high-school aged girls receiving social support during concussion recovery to better understand:

- (1) how they define meaningful social support and barriers/facilitators to receiving it
- (2) who provides that support
- (3) the role of peers


Social support during youth concussion recovery



Helping youth to help each other!

- We found a **gap in resources** that shared information on social support after a concussion
- We **created an infographic** to educate youth on how to help a friend after a concussion with examples of things they can do or say to their friend

Helping a Friend with a Concussion



Why is it important to support a friend?


- Concussions are an invisible injury**

Your classmate may act differently after a concussion. Since no one can see their injury, they may not get the support they need from their peers. Learn about your friend's injury and show empathy to help them feel understood and supported.
- Concussions can affect mental health**


People with concussions face more than just physical challenges. These challenges can include anxiety, frustration, mood swings and social isolation.
- Your friend needs you**

Reaching out to a friend who is recovering from a concussion will help them feel cared for and connected to their community.


What types of support can you give your friend?

**Emotional**

Building a sense of social inclusion, reassurance and care.

**Tangible**

Direct physical aid such as physical support or services.

**Informational**

Information and advice can help a person understand or solve a problem.

How can you support a friend?

What to do	How to do it
Keep in touch with them	→ Call or text your friend, make sure they are not missing out

Do people like You-CAN?



What we heard from students

I would say that, like my **favourite part was the freedom of choice** of how you wanted to go about presenting the information. I really think that having that freedom makes it a lot more **fun to go through and do the whole program.**

– Council Member, School 2

I've learned a lot about concussions and **I'm glad I have that knowledge** now, for the future

- Council Member, School 2



What we heard from school staff

'It was a good experience, I was overwhelmed with the number of students and staff that were interested in joining this initiative.'

'The thing that stood out for me in all of it was support from peers. That you know your friends are your friends but when they don't understand or they haven't experienced it, it's really hard to really understand what someone else is going through and how long you might have to be supportive.'

'I was impressed with the program because it brought kids from different and diverse backgrounds together to share common experiences.'

Next Steps

- Incorporate feedback, update all materials and continue to publish findings in academic journals
- Seek out a sponsor/grant to support the future delivery and ensure that it is accessible to all schools across Canada
- Promote with school boards across Canada to involve more schools during the 2025-2026 academic year

Bring You-CAN to sports!!

You-CAN Sport

**COMING
SOON**

[Home](#)[About You-CAN](#)[Starting You-CAN on your team](#)[Resources](#)[Team Support](#)[Connect](#)[Contact](#)

**Welcome to You-
CAN Sport**

[Log In](#)

Brynna Kerr – PhD Candidate

You-CAN SHRed Concussion

**COMING
SOON**



We are looking at:

- how to prevent concussions from occurring
- how to detect and diagnose concussions
- how to manage concussions to get athletes back playing sport faster
- How to best educate youth on concussion (You-CAN)

SHRED

Surveillance in High School and Community Sport to REDuce Concussions

Call to Action

When creating concussion education for youth:

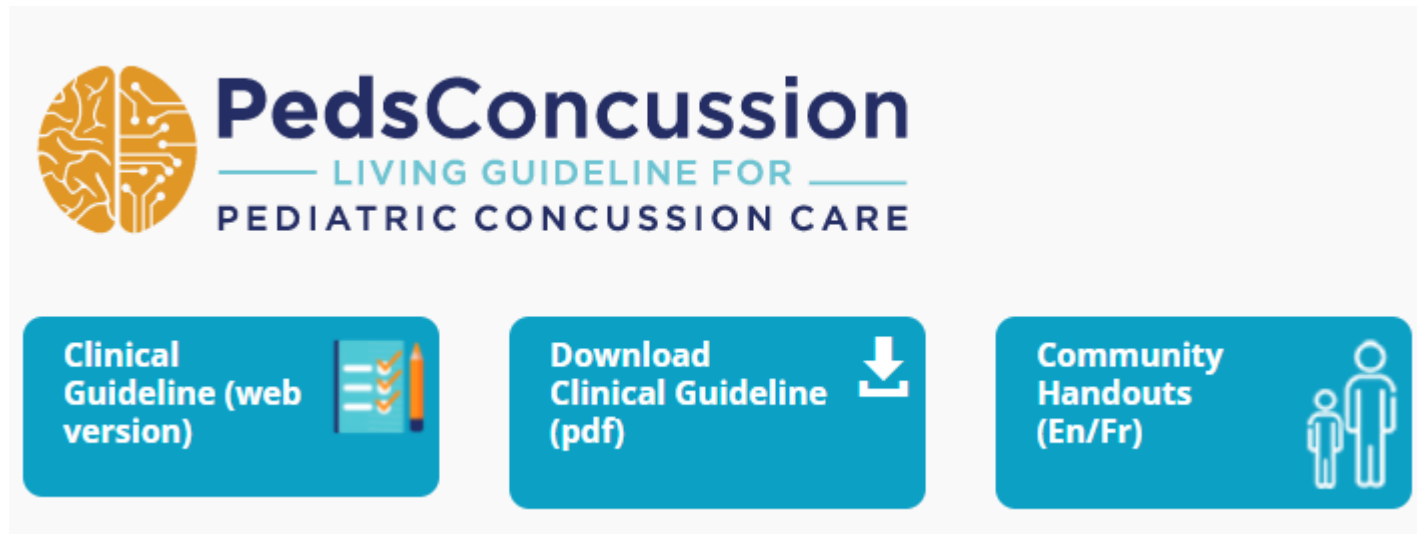
1. **Empower youth** to be leaders now (not just in the future)
2. **Co-create with youth** to ensure we meet their unique needs
3. **Celebrate youth** and the amazing contributions they make

Interested in Learning More?

Get information about You-CAN
sent to your inbox!

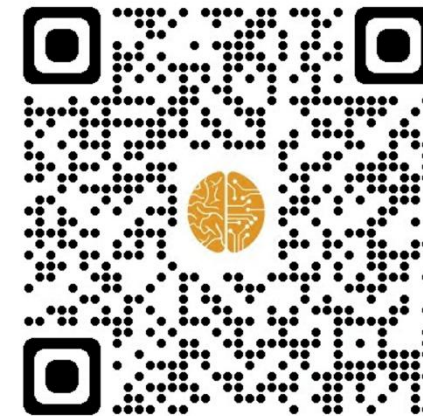


Living Guideline for Pediatric Concussion



www.pedconcussion.com

@PedsConcussion



TRANSCENDENT

Concussion Research Program

What is TRANSCENDENT?

The **TRANSCENDENT Concussion Research Program** is an initiative funded by the Ontario Brain Institute aimed at improving concussion diagnosis and care. Through TRANSCENDENT, leading concussion researchers and healthcare professionals will help members of the public with concussion.

[LEARN MORE](#)

About TRANSCENDENT



TRANSCENDENT Team

www.transcendentconcussion.ca



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BRAIN
INSTITUTE

INSTITUT
ONTARIEN
DU CERVEAU



RESEARCH INSTITUTE
INSTITUT DE RECHERCHE



Rowan's Law Day

ABOUT ROWAN STRINGER

A 17-YEAR-OLD GIRL WHO LOVED RUGBY

Rowan Stringer loved rugby. A competitive and keen athlete, she was captain of her high school's team. Tragically, in May 2013, 17-year old Rowan died as the result of head injuries she sustained while playing rugby. In the week before her last game, Rowan was hit twice while playing, likely sustaining a concussion after each blow. Her concussions went unreported, and she continued to play. Rowan suspected something wasn't right—she texted a friend about her condition and used Google to search for information about concussions. When she was hit again in her final game, Rowan suffered what is known as Second Impact Syndrome—catastrophic swelling caused by a second injury to a brain still healing from previous trauma. Rowan collapsed on the field on May 8, 2013, and died four days later.



Wednesday, September 24th!

Use #RowansLawDay to share stories and learn about concussion

<https://ophea.net/rowans-law-day-toolkit-schools>

Our friends in public health - we can't thank you enough!!

York Region – Silvana Farrace-Perry and Michelle Johnson

Porcupine Health Unit – Alexandria Duhaime

Ontario Concussion Prevention Network

Thank you!

Email: nick.reed@utoronto.ca

Web: www.oakconcussionlab.weebly.com

Socials: @OAKConcussion @PedsConcussion @TRANSCENDENT_KT
[linkedin.com/in/oak-concussion-lab-22517b357](https://www.linkedin.com/in/oak-concussion-lab-22517b357)



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