CASE SCENARIO

Supporting youth experiencing prolonged post-concussion symptoms: Implementing standardized measures to foster mental health

This case scenario highlights the implementation efforts of the Persistent Concussion Clinic (PCC) Team at Holland Bloorview Kids Rehabilitation Hospital. The work involved integrating two mental health measures from the Living Guideline on Diagnosing and Managing Pediatric Concussion[1] (Guideline) into clinical practice. In this case scenario you will:

- learn about the steps taken to implement the mental health measures
- find tips and resources to support you with your implementation planning

THE OPPORTUNITY

The PCC Team[2] is an interdisciplinary team that:

- works with youth experiencing prolonged post-concussion symptoms and their families
- integrates the best available evidence to provide quality care for symptom management and return-to-activity planning

The following factors were a catalyst for the PCC Team to review and shift their mental health screening practice:

Prevalence of mental health challenges in this population

New evidence and Guideline recommendations

Funding to support Guideline implementation

The PCC Team identified the opportunity to integrate a standard approach to:

- screen for *mental health symptom*s to complement current interview-based processes
- investigate *family functioning*

This involved focusing on and selecting pre-identified measures from two mental health recommendations from the Guideline[1]:

8.1 Assess existing and new mental health symptoms and disorders

8.2 Assess the child/adolescent's broader environment, including family and caregiver function, mental health, and social connections

OUR APPROACH

An implementation team involved PCC Team members and knowledge translation (KT) practitioners. Engaging KT practitioners ensured that project planning had a strong implementation science focus. The team used the Active Implementation Stages[3], a four stage process model, to structure and guide implementation planning. This case scenario highlights key activities completed within these four stages: Exploration, Installation, Initial and Full implementation.

Practice Tip

Process models are a great place to start your implementation journey. They provide a roadmap of concrete steps to take to implement an evidence-based or informed program, practice or innovation.

Resource

Visit Dissemination and Implementation Models in Health Research and Practice[4] to learn more about different process models.

Exploration
Information gathering

Interviews

The implementation team interviewed a PCC Team physician, nurse, and coordinator to understand:

- their role in speaking to clients about mental health and family functioning
- at what time during the client's care and how these conversations take place

Clinic flow map

Information from the interviews was used to create a clinic flow map. The clinic flow map captured "who" has conversations about mental health and family functioning, and "how and when" these conversations occur as part of clinic flow.

Screening measures summary

A summary package of the measures that align with recommendations 8.1 and 8.2 was created to support the PCC Team with the measure review and selection process. The summaries included information on:

- purpose of the measure
- format
- development population
- validated ages for use
- scoring
- additional considerations

Implementation planning workshop

A 2-hour implementation planning workshop was held with the PCC Team to:

- select a mental health and family functioning measure from a pre-identified list provided by the Guideline[1]
- Identify "who" should implement the measures and "when"

The summaries were sent to the PCC Team before the workshop. After review and discussion of the measures, the PCC Team voted and selected the:

- Pediatric Profile-25[5]
- Pediatric Family Relationships[6]

The team decided to focus on implementing the self-report versions of the two measures. Using the clinic flow map, the PCC Team identified "who" would implement the measures and "when" implementation should occur. The team agreed that the measures would be introduced by the nurses to the client at the time of their in-person physical appointment with the physicians.

Practice Tip

It is important to engage individuals who are likely to use an evidence-based product to inform their health practices as partners in implementation planning. This approach is called integrated knowledge translation.[7] This can be beneficial for many reasons such as[7]:

- creating a meaningful plan
- fostering buy in and trust
- developing implementation supports that address needs
- enhancing communication

Resource

To learn more, read: Guide to Knowledge Translation Planning at CIHR: Integrated and End-of-Grant Approaches[8]

Installation

Planning and preparing for delivery of the evidence-based practice

Interviews: Understanding behaviour change

The implementation team interviewed the PCC Team nurses to understand potential facilitators and barriers to implementing these measures into practice. Questions in the interview guide were based on the Theoretical Domains Framework (TDF).[9]

Practice Tip

It is important to understand facilitators and barriers to behaviour change. Doing so can help the implementation team create the appropriate supports to address these barriers and change practice.

The TDF is a theory informed approach to determine individual, social and environmental factors that may influence behaviour. One way the TDF can be used is to plan for implementation.

Resources

Learn more about the TDF and how to use it by reading these posts from Knowledge Nudge:

- The Theoretical Domains Framework (TDF): Assessing & Addressing Behavioural Factors in Implementation Science[10]
- How to use the Theoretical Domains Framework[11]

Building implementation supports

Information from the interviews was used to select implementation supports that focused on building knowledge and skill, and making it easy for the nurses to use and score the measures. The following supports were created:

- Clinician package with:
  - the two measures
  - a script and disclaimer for introducing the measures to clients and families
- Automated scoring excel database to capture client scores, along with instructions on how to record client responses to the measures
- Stop light system to help the nurses and physicians address client scores

Creating an evaluation plan

It was important to create an evaluation plan that:

- was achievable within project timelines
- required low resources
- targeted implementation processes and outcomes
- provided easily accessible information
- could be sustained in the long term

Our evaluation goals were to:

- assess measure use and utility
- assess implementation processes and supports
- understand clinician implementation experiences and sustainability needs

Resources

Refer to these resources to help you plan your evaluation strategy:

- Manager's Guide to Evaluation, BetterEvaluation[12]
- Types of Evaluation, Centers for Disease Control and Prevention[13]

The information gathered would help us:

- understand the need to adapt the implementation plan (process evaluation[13])
- determine whether to continue, expand or stop using the measures (outcome evaluation[13])

Implementation kick-off meeting

Prior to launching the measures in clinic, an implementation kick-off meeting was held. The meeting aim was to review the implementation plan and the supports to foster use of the measures and identify any emergent issues.

Concerns were raised by the nurses about the following:

- changes in nursing staff, with two of the three nurses changing roles
- shifts in priorities due to the COVID-19 pandemic

To address these concerns, the implementation team and nurses adapted the implementation plan. This involved:

- engaging a clinic coordinator to administer the measures with clients over the phone 2-3 days prior to their in-person physical appointment with the physicians
- the clinic coordinator informing the nurses that the measures were completed. This communication also acted as a reminder for the nurses to review the client's scores prior to the in-person appointment and to share the results with the physician
- creating additional implementation supports such as:
  - a tracking log to document the completion of measures with clients
  - scripts for documenting client conversations and communication with nurses

Practice Tip

Open and ongoing communication was a critical component to the success of this work. Communication mechanisms included:

- regular planning meetings with the implementation team
- using the PCC Team Rounds as a platform for information sharing
- emails to the PCC team
- meetings with different PCC Team members

Initial Implementation

Delivering the evidence-based practice and trialing the implementation strategies

Using the measures in clinic

The length of the funded project was 6 months. Approximately 4.5 months of the project was focused on creating a robust plan to implement the two measures. The remaining 1.5 months was used to implement the measures within the PCC Team and to assess evaluation goals.

Evaluating implementation processes and impact

The implementation team used a mixed-methods[14] approach to gather quantitative and qualitative information about implementation processes and experiences. This involved:

- having short meetings throughout implementation with the clinic coordinator and nurses to understand implementation success and challenges, and opportunities to adapt implementation processes
- comparing the number of clients eligible to receive the measures with the actual number clients who completed the measures
- interviews with the clinic coordinator, nurses and physicians

Resources

Refer to these resources to help you plan your evaluation strategy:

- Mixed Methods Design in Evaluation[14]
- Developing an Effective Evaluation Report, Centers for Disease Control and Prevention[15]

Implementation outcomes

6/8 clients* completed the self-report mental health and family function screening measures

*Clients identified as appropriate for measure completion

What worked well

- Clinic coordinator calling clients to complete the measures
- Nurses printing the client's scores and highlighting items for the physician to review before seeing the client in-person

Implementation plan adaptations

- The clinic coordinator broadening email communication to include:
  - the client's physician and all nurses (different nurses support the physicians)
  - whether the client has or has not completed the screening measures
  - flagged items on the measures

Things to consider

- Reaching the client via telephone can be difficult. Creating a scheduled appointment with the client to complete screening measures would be helpful. This appointment should be scheduled close to the client's in-person visit with the physician to ensure that timely care is provided, should any issues be flagged.
- Completing these measures throughout the client's care journey would present healthcare providers with an objective view on the impact of care decisions on and changes in the client's health and wellbeing.

> **Using these measures is a systematic approach to capturing how many clients are getting flagged as part of the screening process and can assist the team in advocating for more mental health support in the clinic.**

Full Implementation

Consistent delivery of the evidence-based practice and processes

Full implementation takes time. This project provided the PCC Team with the opportunity to create a foundational implementation plan and processes for these screening measures. While the PCC Team acknowledges the broad value of completing these measures in clinic, more time (beyond 1.5 months of implementation) is needed to understand overall impact. The work completed will be reviewed by the PCC Team and will assist with future decision-making efforts.

Practice Tip

Implementation is hard work and can be challenging. Implementation can be even more difficult during turbulent times such as in the midst of staff changes or a pandemic. Fostering communication and providing space for a team to digest and reflect on key learnings is a critical part of the implementation journey.

Resources

Learn more about implementation, scale, spread and sustainability by reading these bulletins from the Center for Implementation:

- 3 Tools for Practical Sustainability Planning[16]
- Scaling up evidence-based programs[17]

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