Nova Scotia Pyramid Model Annual Report

Executive Summary – November 2020

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The Pyramid Model for Supporting Social Emotional Competence in Infants and Young Children is a three-tiered, evidence-based, positive behaviour support (PBS) framework for early childhood educators (ECEs) to promote social and emotional development and address challenging behaviour.[1] A coaching approach to professional development and skill development is taken to support ECEs and all children in early childhood programs.

Nova Scotia began implementing the Pyramid Model in 2018 across the province at select Regulated Child Care (RCC) centres (referred to as the "RCC Cohort"), which serve children from birth to 5 years of age. In 2019, the province broadened its implementation to include select Pre-primary Programs (PPP) (referred to as the "PPP Cohort"), which serve children the year before Primary. See Appendix A for an overview of the RCC and PPP Cohorts.

The purpose of the following executive summary is to illustrate the findings from the evaluation of the Pyramid Model implementation across Nova Scotia in response to the two evaluation questions.

Evaluation Question #1: How does the Pyramid Model infrastructure in Nova Scotia influence implementation in Regulated Child Care and Pre-primary Program systems?

In all tiers of the Pyramid Model, data-based decision making is critical. Data-based decision making refers to the ongoing collection and use of data to inform how the Pyramid Model is being implemented in programs across Nova Scotia. Data is collected at every level of implementation, which is then used by the Provincial Leadership Team (PLT) and other stakeholders (see Appendix B) to inform future decision making regarding implementation. The continuous and active involvement of implementation team members ensures that Coachees and programs receive the resources needed to improve and enhance their practices, policies, and procedures to better support children and their families.

Facilitating Data-Based Decision Making

The Pyramid Model uses data from the Benchmarks of Quality (BoQ) (see Appendix C) to provide quantitative data at a systems level to aid monitoring and evaluation of the implementation process and to inform future decision-making. The following are the highlights as of March 2020:

Provincial Leadership Team Benchmarks of Quality

- The PLT completed four BoQ self-assessments and has shown consistent improvement across data collection points.
- At baseline, 31% of indicators were either partially or fully in place. By the end of the second year of implementation, 76% of indicators were either partially or fully in place.

Coaching Practice Benchmarks of Quality

- Eight RCC Cohort Coaches completed their baseline self-assessment, with 80% of indicators either partially or fully in place.
- Nine PPP Cohort Coaches completed their baseline self-assessment with 68% of indicators either partially or fully in place.
- Preliminary findings show that the two cohorts appear to be uniformly applying Pyramid Model coaching practices.

Early Childhood Program-Wide PBS Benchmarks of Quality

RCC Cohort
- Twenty-three programs completed their baseline self-assessment, and 22 completed a second.
- The third round of data collection is underway, with 11 completed as of March 2020.
- Preliminary analyses show increases in average indicator scores on each of the seven critical elements.

PPP Cohort
- Seven baseline assessments were completed, with indicator scores on each element similar to the baseline averages of the RCC Cohort.
- Comparative analyses will be conducted when additional BoQs have been completed.

When considered together, the three BoQs indicate that elements related to planning, installation, and implementation (e.g., Establish Leadership Team) have a higher percentage of indicators in place and are improving at a faster rate. Elements related to scale-up and sustainability (e.g., Monitoring Implementation and Outcomes) have fewer indicators in place and are progressing at a slower, but steady rate.

Evaluation Question #2: How is the Pyramid Model being Implemented in Regulated Child Care and Pre-primary Programs in Nova Scotia?

Enabling Practice-Based Coaching

Practice-Based Coaching is a cycle-based approach that involves collaborative partnerships, shared goals and action planning, focused observations, and time for reflection and feedback opportunities. Coaches and Coachees work together to set goals using objective information from data-based tools such as coaching logs and focused observations (Appendix C). Coaches and Coachees indicated that the collaborative goal-setting process was going well, and the feedback and data received from Coaches were clear, constructive, and helped them reflect on their practices. Some Coachees were unsure about the applicability of the observational tools in Nova Scotian early learning programs. The following are the highlights as of March 2020:

> "We work together collaboratively to work towards the goals we have set for our class." [Coachee]
>
> "I have very good communication with my coach and [they] help me pick goals that I can achieve." [Coachee]
>
> "Feedback is always given in a clear, concise manner so I fully understand!" [Coachee]
>
> "I am very comfortable receiving data. I feel you can always learn from data and this can lead to more success in your room." [Coachee]

Individual Coaching Logs

- Coaching logs for 55 RCC Coachees and 30 PPP Coachees have been collected.
- Coaches from both Cohorts tend to use the same observation and debrief strategies.
- PPP Coaches spent more time observing than RCC Coaches, and all Coaches spent roughly the same amount of time debriefing.

Teaching Pyramid Observation Tool for Preschool Classrooms (TPOT)

RCC Cohort

- Twenty-seven baseline TPOTs were collected, with an average of 41.2% of Key Practices in place.
- The second round of TPOT observations is underway, with 11 completed as of March 2020.
- Preliminary analyses indicate Key Practices are increasing. Full analyses will be conducted when all second round TPOTs have been completed.

PPP Cohort

- Thirty-six baseline TPOTs were collected, with an average of 53.4% of Key Practices in place.
- The second round of TPOT observations is scheduled to begin in the Fall of 2020.

Teaching Pyramid Infant-Toddler Observation Scale (TPITOS)

RCC Cohort

- Thirty-two baseline TPITOS were collected, with an average of 62.2% of Observational and Interview items in place.
- The second round of TPITOS observations is underway, with 15 completed as of March 2020.
- Preliminary analyses indicate that the Cohort is steadily improving, with 12 of 13 items increased. Full analyses will be conducted when all second round TPITOS have been completed.

Collectively, the coaching logs, TPOT, and TPITOS indicate that Coaches are coaching Pyramid Model practices in similar ways, and Coachees have similar strengths and limitations of practice at their baseline observations.

Considerations for Sustainability and Moving Forward

The following considerations for implementing the Pyramid Model have been collaboratively developed between the evaluation team and PLT in response to the evaluation findings. These key areas will prioritize the focus for the upcoming year of the Pyramid Model initiative in Nova Scotia.

Using an Implementation Science Approach

To incorporate implementation science into our approach, a causal theory of change (ToC) was integrated with an implementation drivers framework. This updated approach will better allow the evaluation team to identify what is working about the implementation and why. Moving forward, the new ToC will be used as a tool to reflect upon the aims and plans of the implementation, to gauge and refine strategies and actions taken, and to guide interview and survey design.

Enabling Data-Based Decision Making

The Pyramid Model implementation produced a large amount of data over a relatively short period. There has been a limited capacity to draw conclusions and make long-term data-based decisions because there are few timepoints for analyses. Ongoing data collection over the next year will allow for a quantitative scale-up to increase the accuracy of data-based decision making to help guide implementation efforts. Further, a fact sheet will be created to answer frequently asked questions about using data collection tools to better enable Coaches, Program and Regional Leadership Teams, and Coachees to use data to inform their decision-making.

Enhancing Roles and Communication

The evaluation identified that the roles of key stakeholders need to be clarified. There was some uncertainty about the role of the PLT and Master Cadre, particularly in relation to how these stakeholders interact with Coaches. A Coach Team Lead position was developed to support coaches and was a beneficial resource, but the specific responsibilities need further clarification. The creation of orientation binders for stakeholder groups has been actioned by the PLT to address this and will clarify a particular group's role and required responsibilities.

Another finding suggested that communication between stakeholders needs to be improved. Coachees and Coaches indicated that they were building a collaborative relationship, but this takes time to foster. Support sites (hosts for coaches) stated that through the Pyramid Model implementation, they built relationships with outside stakeholders and the early childhood communities. Communication within the PLT and the team of Coaches seemed to be working well but may need to be improved between stakeholder groups (e.g., PLT and Coaches, Master Cadre and Coaches). It was recommended that a communication platform be utilized to facilitate regular check-ins with all groups.

Fostering Engagement

Implementing the Pyramid Model is a continuous investment of time and effort. To support the PLT with implementation across the province, supplementary roles (e.g., co-chair, project manager) were suggested to guide the leadership of the initiative. Further fostering ongoing buy-in from Coachees and programs and ensuring that PLT members can prioritize related tasks will support action planning and data-based decision making to ensure the sustainability of the Pyramid Model in Nova Scotia.

To begin to foster family engagement and feedback, future data collection will include a survey with families involved with Pyramid Model programs to understand their experiences. A regular feedback loop will need to be created to give families an opportunity to provide feedback and receive updated information about the Pyramid Model.

Aligning with Nova Scotia Early Childhood Initiatives

Currently in Nova Scotia, there are multiple early childhood initiatives being implemented alongside the Pyramid Model to support the education of young children. In 2018, the Nova Scotia Early Learning Curriculum Framework was introduced to provide ECEs with a framework to create high-quality early learning environments that support the growth and development of children.[2] Quality Matters was also introduced in 2018 to improve the quality of child care centres across the province.[3] Despite efforts to demonstrate alignment with the Pyramid Model, addressing the concerns from some participants about conflicting initiatives is critical in the success of the Pyramid Model.

Ensuring Access to Appropriate and Responsive Resources

The PLT is responsible for ensuring there is an appropriate infrastructure to support the implementation of the Pyramid Model. Coaches described the PLT as helpful for "keeping implementation on track" and supporting Coaches through the distribution of resources, tools, and professional development.

There have been numerous training opportunities available as part of the Pyramid Model; most have been well received and have provided essential content knowledge and an opportunity to discuss Pyramid Model practices. Professional development opportunities were received positively in general, however, feedback from the evaluation highlighted the need to adapted for the Nova Scotian context by removing irrelevant content and videos to eliminate repetition. Further, additional training in data collection and usage, leadership training, and coaching practices has been identified as a need to strengthen the capacity of stakeholders through professional development.

References

1. Hemmeter ML, Santos RM, Ostrosky MM. Preparing Early Childhood Educators to Address Young Children's Social-Emotional Development and Challenging Behavior: A Survey of Higher Education Programs in Nine States. J Early Interv [Internet]. 2008 Jun 12 [cited 2020 Aug 28]; Available from: http://journals.sagepub.com/doi/10.1177/1053815108320900

2. Department of Education and Early Childhood Development. Capable, Confident, and Curious: Nova Scotia's Early Learning Curriculumn Framework [Internet]. 2018. Available from: https://www.ednet.ns.ca/docs/nselcurriculumframework.pdf

3. Flanagan K. Quality Matters Continuous Quality Improvement: A Guide for Licensed Child Care Centres [Internet]. Department of Education and Early Childhood Development; 2018. Available from: https://www.ednet.ns.ca/earlyyears/documents/quality_matters_continuous_quality_improvement_en.pdf

Appendix A

Overview of the RCC and PPP Cohorts

	Cohort	
	RCC	**PPP**
Start Date	September 2018	September 2019
Number of Coaches	8	10
Number of Leadership Teams	23	7
Number of Programs	23	33
Number of Coachees	55	33
Age Group	0-5 years of age	4-5 years of age

Appendix B

Nova Scotia Pyramid Model Stakeholders

Provincial Leadership Team

- A team of leaders responsible for the planning and supervision of all aspects of the Pyramid Model. The team ensures that the necessary structure and resources are put in place and are available to guide the implementation of the Pyramid Model in Nova Scotia.

Master Cadre

- 20 early childhood professionals responsible for the delivery of Pyramid Model Modules to support implementation throughout Nova Scotia.

Coach Team Lead

- This role uses parallel processing to enhance experiential learning in the Coaches. A reflective approach is used to encourage Coaches to reflect on their coaching practices, modelling similar strategies that the Coaches can utilize with their Coachees.

Evaluation Team

- Dr. Jessie-Lee McIsaac, a Tier II Canada Research Chair in Early Childhood: Diversity and Transitions, an Assistant Professor at Mount Saint Vincent University and cross-appointed between the Department of Child and Youth Study and the Faculty of Education at Mount Saint Vincent University leads the Evaluation Team. Using a developmental approach, the Evaluation Team informs ongoing implementation of the Pyramid Model in Nova Scotia.

Early Childhood Education Support Sites

- Located across the province, Early Childhood Education Support Sites guide ECEs and other early childhood professionals at the community level. Support sites assist in building partnerships and provide resources specific to early childhood, such as the delivery of professional development opportunities. Support sites across the province employ all Pyramid Model Coaches.

Coaches

- 17 experts who provide individualized on-site coaching and support to ECEs in implementation programs. They support the Leadership Teams by collecting data, supporting the decisions making process, planning for professional development, policy alignment and implementation program-wide.

Program/Regional Leadership Teams

- Program Leadership Teams are formed by select RCC centres and support Coachees within that particular centre. Regional Leadership Teams are formed by a region and support select PPPs in a given region. Both teams utilize data to inform the ongoing implementation of Pyramid Model practices and strategies, to adopt them program-wide.

Implementation Programs

- There are currently 20 RCCs and 33 PPPs across the province participating in the Pyramid Model in Nova Scotia. Pyramid Model RCC centres support children from 0-5 years of age and are licensed by the Nova Scotia Department of Education and Early Childhood Development. Pyramid Model PPPs support children the year before Primary (must be four years old by December 31st)

Coachees

- Coachees are the ECEs who have committed to implementing the Pyramid Model practices in their rooms. They participate in the coaching visits, reflective practices, data collection, action planning, and ongoing professional development, as identified in their individualized action plans

Appendix C

Data Tool Details

Tool Name:	Description of Tool:	Timeline:	Completed by:	Collected to Date:
Coaching Logs	Coaching Logs provide a summary of the amount of time spent coaching and what types of strategies have been used. Coaching Logs are completed at each visit to the implementation program, and spreadsheets are submitted to the evaluation team.	Monthly	Coaches	RCC: 55 PPP: 30
Coaching Practice BoQ (wording adapted)	The Coach BoQs are designed to provide details at an individual level to help Coaches organize their work and allow for reflection of their practices and provide data at a systems level to aid monitoring and evaluation of the implementation process.	Biannually	Coaches	RCC: 8 PPP: 9
Early Childhood Program-Wide PBS BoQ	Designed to help programs evaluate their progress toward implementing the Pyramid Model program-wide.	Biannually	Program/Regional Leadership Teams	RCC: 55 PPP: 7
PLT BoQ	Designed to assess the implementation of the Pyramid Model and determine action plans for future implementation.	Biannually	PLT	4
TPITOS	The TPITOS tool is used to assess the implementation of the Pyramid Model practices in classrooms for children 0-3 years old.	Biannually	Trained Observers	RCC: 47 PPP: n/a
TPOT	The TPOT tool is used to assess the implementation of the Pyramid Model practices in classrooms for children who are 2-5 years old.	Biannually	Trained Observers	RCC: 38 PPP: 36