Evaluation of sustainability strategies in a universal mental health school program implementation
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ABSTRACT
Limited research exists about factors that influence the sustainability of universal mental health promotion programs after the controlled and supported environment of a research study. This research study explores the factors associated with sustained implementation of MindUP™, a mindfulness-informed social and emotional learning (SEL) curriculum in schools following a quasi-experimental longitudinal evaluation. The purpose of this study is to evaluate the sustainability of MindUP™ in LDCSB using discontinuation analysis and identifying factors associated with discontinued and sustained implementation.

Between 2016-2021, 279 educators of LDCSB in Southern Ontario were trained in MindUP™. Educators were support staff administrators trained for district-wide capacity building and educators trained to implement the program as part of the quasi-experimental study. The research team provided many resources intended to support and sustain the implementation of MindUP™. In January 2022, every LDCSB educator trained in MindUP™ was included in the study through an online survey (n=124). Data were analyzed using SPSS descriptives.

INTRODUCTION
MindUP™ is a mindfulness-informed SEL program shown to promote cognitive and SEL skills such as self-awareness, self-management, and perspective taking for children who receive the program (Shonkoff & Reis 2015).
In an evaluation of MindUP™ in LDCSB, a school district in Southern Ontario, we found evidence of positive effects including improved child behavioural problems (Crooks, et al., 2020) and reducing educator burnout and stress (Kim et al., 2020). The implementation of evidence-based prevention programs, such as MindUP™, means sustaining over time to produce the intended benefits for children (Han & Weiss, 2005). There is limited literature on the factors that promote sustained implementation of evidence-based programs in schools (Arnold et al., 2021). Sustainability of evidence-based mental health programs by teachers is defined as the continued use of the curriculum components at a level that is sufficient to sustain the outcomes (Han & Weiss, 2005).

METHODS
Participants
Primary educators (Kindergarten to Grade 3) and school district staff from schools in a Catholic School District in Southern Ontario, Canada.

Table 1: Descriptive Statistics Summary of Survey Participant Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years teaching in the classroom</td>
<td>11.16</td>
<td>7.6</td>
<td>3.0</td>
<td>25.27</td>
</tr>
<tr>
<td>Age</td>
<td>35-44 years</td>
<td>39.4</td>
<td></td>
<td>55-64 years</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>62.3%</td>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Current role</td>
<td>15.2%</td>
<td>Online</td>
<td></td>
<td>84.8%</td>
</tr>
<tr>
<td>Education level</td>
<td>Diploma</td>
<td>12.7%</td>
<td></td>
<td>Bachelor</td>
</tr>
<tr>
<td>MindUP™ professional development</td>
<td>Yes</td>
<td>37.3%</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Sustainability Strategies: Trained implementers received a resource package of curriculum-alignment handouts, Booster sessions or sustained implementation cards. MindUP™ lesson extensions of District-specific and Catholic-relevant activities, parent handouts, and curriculum alignment documents showing the provincial expectations that are met by teaching MindUP.

Survey: Respondents indicated their implementation or discontinuation of the program. Respondents self-identified factors that they attribute to their sustained implementation or barriers to implementation. Educators were asked to describe their supports for supports changes, and provide implementation resources.

Data Analysis: Survey data were analyzed in SPSS using descriptive statistics.

FINDINGS
Through a quasi-experimental multi-year implementation research study of MindUP™ in Kindergarten to Grade 3 classrooms, we found significant impacts on students’ social, emotional, and adaptive behaviour skills and positive affects on educators, as compared to educators and students who did not receive the training (Crooks et al., 2020; Kim et al., 2021).

DISCUSSION
DISCUSSION Point 1: 17 Respondents never implemented MindUP™ after receiving training, 16 respondents (94.1%) were trained in 2019-20 and 2020-21. (100%) had 12 months to implement the program. The survey received 1.5 hours of online training vs. full day in-person training of previous years.
Barriers: Time: Respondents were heavily involved in teaching activities and felt they were unable to find time to complete the training. They were not given the opportunity to receive training in the school setting.
Factors: Time: The time needed to complete the training was overwhelming for most of the respondents.

DISCUSSION Point 2: 45 Respondents discontinued MindUP™ before receiving training or stopped after the first implementation. 32 respondents were trained in person (51%) and 14 trained online (42%).
Barriers: Time: Respondents were more likely to discontinue the implementation of MindUP™ due to competing priorities for instructional time (33%).
Factors: Time: Respondents were more likely to discontinue the implementation of MindUP™ due to competing priorities for instructional time (33%).

DISCUSSION Point 3: 60 Respondents are currently implementing MindUP™ and intend to continue. 43 were trained in person (72%) and 15 trained online (25%).
Barriers: Resources: Resource package (n=54) was the most common barrier to continued implementation. 28 respondents (46.7%) mentioned the need for ongoing support and resources for MindUP™.
Factors: Resource package (n=54) was the most common barrier to continued implementation. 28 respondents (46.7%) mentioned the need for ongoing support and resources for MindUP™.

SUMMARY AND CONCLUSIONS
Major barriers to implementation include the challenges associated with the COVID-19 pandemic and limited time for meeting curriculum expectations. Facilitators of sustained implementation include support resources, program benefits (strengths for children and teachers). Recommendations are to provide high-quality training, enhance support for educators experiencing transitions (e.g. pandemic-related online learning or role changes), and provide implementation resources.
This study contributes to the current literature by demonstrating the fundamental challenges and facilitators of sustained implementation of the MindUP™ program in a real-world setting.
Factors identified as influencing sustained implementation of evidence-based mental health promotion programs can impact multi-sector partnerships plans for implementation in schools. Identification of the critical points of discontinuation phases and processes can promote more successful implementation, program effectiveness and ultimately sustainability of such initiatives.

REFERENCES

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