Supplementary Appendix

Additional Details of Methods

Participants

Canadian students who are in grades seven and eight are typically aged twelve to fourteen and all students in this study were within this age group. All students in each of the classrooms were taught the Harry Potter based curriculum whether they agreed to participating in the research or not. To be eligible for inclusion in the research study, youth had to be fluent in English.

Intervention

Intervention readings were paired with individual and group in-class assignments as well as homework focused on the relationship between the narrative, CBT skills and resilience. Specifically, exercises were divided into 11 modules following the novel's narrative: 1) Psychoeducation A (risk and protective factors for emotional distress), 2) Psychoeducation B (distress and resilience), 3) Psychoeducation C (introduction to depression), 4) Introduction to Cognitive Distortions, 5) Introduction to Anxiety and Avoidance, 6) Strategies for Tackling Anxiety, 7) Managing Setbacks, 8) "Stressbusters" (personalized strategies for handling stress) 9) Putting learned CBT skills into practice, 10) Reviewing the Importance of Evidence and Introduction to Core Beliefs, 11) "Practice Makes Progress". In the final unit, youth are provided with a summary of learning, a plan for what to do if their skills do not adequately manage their distress and graduate as "CBT Wizards".

Teacher Training

Training consisted of a three-hour presentation augmented by a curriculum manual including key learning points, CBT skills and their relationship to each chapter, as well as lesson plans and exercises for each module. Given the intent for broad dissemination, the training was intentionally kept brief.

Teachers were provided with the manualized intervention which includes mandatory lessons and exercises and assists fidelity through checklists at the end of each unit. A research team member visited each class to assess implementation, interacting with both students and teachers who shared work samples representative of the core concepts and lessons. Fidelity was deemed to be high across all classes.

Data Collection and Measures

The RCADS maximum score was 141. Note that the LPI is a 5-point Likert scale scored 1-5 with a value of 1 indicating "none at all like me". To avoid misinterpretation, the scale was adjusted to scores of 0-4 with negative responses coded as 0. The adjusted maximum score on the LPI was 240. To avoid collecting and storing identifiable information indefinitely classroom lists were provided to the investigators who assigned participants a unique identification code that was used to label all materials related to each participant, including the LPI[1] and RCADS[2]. Identifying information was then destroyed.

Questionnaires were read aloud during delivery and each subject had an opportunity to ask for clarification if needed, only to ensure that there was no misunderstanding of either the instructions or the questions. As it was recognized that there may have been a possibility that participants could become upset when asked about various difficulties, a list of children's mental

health practitioners both internal and external to the school was provided, including support and psychology staff, who could be available to provide services, which included a risk or threat assessment, for students who are identified through the study as having mental health problems, including suicidal thoughts and behaviours. Data was later entered and rechecked by study staff members.

Definitions of "High" and "Low" Suicidality

Suicide scores showed a bimodal distribution with 70 students having suicidality scores of 0-5 and eight with scores of 8-16. These groups were defined as "low" and "high" suicidality respectively.

Results of Sub-analyses

Sub-analysis using repeated measures MANOVA found significant effects for sex (Wilk's Λ=0.86, F (3,74)=4.15, $p<0.01$, partial n2 =0.14) and suicidality level (Wilk's Λ=0.37, F (3,74)=42.16, $p<0.01$, partial n2 =0.63). Sub-analysis examining the high and low suicide groups showed numerical reductions in all items including suicidality (50% and 32% reductions respectively) that were significant only in the high risk group (Table 2). Sex-based sub-analysis demonstrated significant improvements on the LPI and RCADs in boys (25% and 33% reductions respectively) with a 75% reduction in suicidality scores that approached significance. Composite suicidality scores and suicidal ideation were significantly reduced in girls.

The MANOVA was used to preserve statistical power of the study, in part, to avoid concerns about selective reporting discussed above. That is, we wanted to demonstrate significance in an omnibus test before performing the t tests to identify whether individual items

were significant. Since the MANOVA omnibus test was significant, we were justified in running the t tests to identify which variables drove global significance.

Limitations

This study had several limitations. Due to a lack of a matched control group, it was not possible to account for other factors such as seasonal trends which might have influenced results. The fact that only half of participating students (and their parents) consented to answer research questions is also a major limitation. However even if other youth did not benefit to the extent that study subjects did, it would not negate the value of the intervention in this group. Future studies ought to utilize a controlled research design such as a stepped-wedge procedure in which some classes are randomized to receive the intervention in fall and some in winter.[3,4] This would ultimately deliver the curriculum to all students while still allowing controlled comparisons at mid-year. Moreover, while the data in this manuscript provides a strong signal of the potential effectiveness of the Harry Potter intervention, larger studies in more ethnically and culturally diverse samples are needed. This sample size in was modest, and it derived from only a rural, ethnically homogeneous Catholic school board sample. Only 13% of people living in the rural region represent visible minorities including people from Asian, African, Middle Eastern and Indigenous communities.[5] Moreover, our data collection sample is significantly more homogeneous when compared to the reported statistics of the rural Board. Therefore, results may not be generalizable to a more culturally and ethnically diverse urban setting. Demonstrating generalizability is crucial given evidence that youth from ethnic minority communities are at higher risk of suicide.[6] In addition, at this time we only investigated one book, and there may be other opportunities to educate teachers on safe narrative about suicide.[7] Because school and instruction can vary independently, it is necessary to examine the experiences of both teachers

and students. Future studies can utilize focus groups and/or surveys/questionnaires along with observational methods to examine curriculum delivery which may be sensitive to conditions that differ across schools. Presently, lack of a rigorous measure of adherence is a limitation.

This study examined an inexpensive and relatively straightforward intervention, embedded within usual school activities using a novel that is both adored by youth and ubiquitously available. It provides preliminary evidence that this intervention may diminish suicidality and improve wellbeing in youth. If these results can be replicated and confirmed, they will have important implications for suicide prevention in youth.

Supplemental References

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Table 1: Comparison of Suicidality, Life Problems Inventory (LPI), and Revised Children's Anxiety and Depression Scale (RCADS) Scores Prior to and After the Harry Potter Intervention in Middle Schoolers with High (n=8) and Low (n=70) Baseline Suicidality Scores and According to Sex (Male n=28; Female n=50)

Variable		Pre Intervention Mean (SD)	Post Intervention Mean (SD)	t	df	p
LPI Suicidal Items (11, 7, 26, 22)	HS	11.25 (3.73)	5.63 (6.37)	3.46	7	0.01
	LS	0.63 (1.33)	0.43 (1.53)	1.32	69	0.19
	Male	1.46 (3.51)	0.36 (1.37)	1.70	27	0.10
	Female	1.86 (3.76)	1.30 (3.42)	2.31	49	0.03
Item 7: *Killing me may be the easiest way of solving my problems.*	HS	3.00 (1.07)	1.38 (1.69)	2.39	7	0.048
	LS	0.14 (0.35)	0.10 (0.35)	0.90	69	0.37

	Male	0.39 (0.99)	0.04 (0.19)	1.84	27	0.08
	Female	0.46 (0.99)	0.34 (0.87)	1.18	49	0.24
Item 11: *More and more I often think of ending my own life.*	HS	3.13 (1.13)	1.13 (1.64)	3.35	7	0.01
	LS	0.20 (0.65)	0.14 (0.55)	1.07	69	0.29
	Male	0.36 (1.06)	0.07 (0.38)	1.32	27	0.20
	Female	0.58 (1.18)	0.34 (0.92)	2.37	49	0.02
Item 22: I have deliberately hurt myself without meaning to kill myself (such as cutting or scratching myself).	HS	3.25 (0.89)	1.75 (1.75)	3.00	7	0.02
	LS	0.26 (0.58)	0.19 (0.79)	0.78	69	0.44
	Male	0.46 (1.00)	0.18 (0.77)	1.32	27	0.20
	Female	0.62 (1.16)	0.44 (1.15)	1.54	49	0.13

Item 26: *I have made at least one suicide attempt.*	HS	1.88 (1.89)	1.38 (1.77)	1.87	7	0.10
	LS	0.03 (0.17)	0.00 (0.00)	1.43	69	0.16
	Male	0.25 (0.80)	0.07 (0.38)	1.99	27	0.057
	Female	0.20 (0.83)	0.18 (0.80)	1.00	49	0.32
LPI Total Scores	HS	135.25 (28.04)	111.63 (48.52)	1.61	7	0.15
	LS	46.56 (32.31)	41.97 (33.21)	1.60	69	0.12
	Male	50.71 (41.99)	34.04 (28.85)	3.14	27	0.00
	Female	58.42 (41.74)	57.56 (44.03)	0.25	49	0.80
RCADS Total Raw Scores	HS	80.75 (12.62)	68.13 (24.36)	1.38	7	0.21
	LS	39.01 (21.85)	37.20 (22.36)	0.94	69	0.35

	Male	35.66 (24.08)	26.71 (17.67)	2.89	27	0.01
	Female	47.56 (24.06)	48.02 (24.31)	-0.19	49	0.85

* repeated measures MANOVA $p<0.01$