

Program Evaluation of HEROES I

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Executive Summary

Background

Junior high school students (10 through 14 years of age) undergo developmental changes in mental health, relationships, and physical development (Fink et al., 2015; Pachucki et al., 2015). Positive mental health during this period is crucial for the development of mental health in late adolescence and adulthood (Kansky et al., 2016). Based on positive psychology, positive mental health has been characterized as positive emotions or personality traits such as self-esteem, self-confidence, and resilience (Fredrickson, 2001). Positive psychology has recently embraced a strength-based approach to enhance positive developmental pathways, particularly in youth (Alford & White, 2015). In response to the growing need to develop programming for youth that is strengths-focused, the Impact Society created the HEROES I program as a social-emotional skill building program that equips youth with tools to enhance their capacity for resilience.

Purpose/Objective

The current evaluation investigates the outcomes and effectiveness of the HEROES I program in equipping students with tools to enhance their resilience through building confidence, character, and integrity. In addition, the purpose of this evaluation is to understand the experiences of students in the HEROES I. The following objectives were designed to guide the evaluation: (1) Explore change in resilience; (2) Investigate the development and maintenance of student confidence, character, and integrity; (3) Explore change in positive support networks; (4) Gain insights into student's experiences of the HEROES I program.

Method/Design

An outcome-based evaluation method was used to assess the extent to which the HEROES I program achieved its intended outcomes. The goal of the HEROES I program is to produce specific, measurable outcomes in resilience, student's character through confidence, values, and integrity, and increase student's support networks. Surveys were administered at four different time points to participants to collect outcome data. A longitudinal study design was used to follow a group of individuals who participated in the HEROES I program to understand outcome data prior to the program, immediately after the program, and 2 and 5 months after completion of the program.

Key Findings

Participants in the HEROES I program showed a significant increase in resilience after participating in the HEROES I program and these increased were maintained 2-months and 5-months post-HEROES I. Participants in the HEROES I program also showed positive changes in confidence, self-esteem, character development, and integrity post-HEROES I. In addition, participants showed some positive change in developing support networks, specifically, students were more comfortable going to someone in their life when they need support. Qualitative data supports the findings, with eight themes emerging: 1) Changing perception of others; 2) Increased kindness and respect for others; 3) Gained self-understanding; 4) Self-improvement; 5) Drawn to action; 6) Ability to seek help; 7) Knowledge of positive supports; and 8) Increased self-compassion.

Recommendations

Findings indicate a significant positive change in resilience after participating in the HEROES I program, it may be beneficial for more schools to implement the HEROES I program to increase student resilience, especially for students at risk. In addition, the Impact Society may want to continue research on the HEROES I program by increasing its sample size and include multiple comparison groups (e.g., urban and rural schools across the province) to increase reliability and accuracy of the evaluation findings. Further longitudinal analysis of program participants a year after completion of the HEROES I program will facilitate tracking longer-term impacts of the program.

Background

Mental Health in Youth

Research suggest that we are facing an unprecedented increase in childhood and adolescent mental health challenges (Abramson, 2022). According to Abramson, 81% of youth reported having been negatively impacted by stress, with one in five children in Canada having a mental health problem. Children, like adults, are confronted with a variety of circumstances that necessitate coping and adaptation; however, due to their limited life experiences, resources, and knowledge, this population may be at risk for developing cognitive, emotional, and behavioural problems (Brooks, 1994). Children and adolescents who suffer from persistent stress and other mental health challenges are more likely to experience mental health challenges into adulthood and academic and interpersonal difficulties (Abramson, 2022). These worrisome statistics point to the need to prevent mental health challenges and enhance student wellbeing.

Given the importance of student wellbeing, research has focused on protective factors in relation to student wellbeing. This includes individual characteristics such as social and emotional skills (e.g., communication, problem-solving, and relationship skills), a sense of optimism about the future, and resilience (Resnick, 2000). There has been a greater emphasis on prevention and early interventions to improve youth resiliency in order to prevent adversities from arising or continuing later in life and to assist those who are at risk so that they may succeed in school. Resilience will be further discussed below as it pertains to mental health and wellbeing.

Resilience

Resilience involves being able to recover from challenges—to function as well as before and move forward (Masten, 2001). Students who are resilient can effectively cope with, or adapt to, stress and challenges. They learn from experiences of being able to effectively manage in one situation, making them better able to cope with challenges in future situations. Resilient children tend to be more empathetic, are good communicators who are able to solve problems, have a strong interest in school, are dedicated to learning, driven to achieve goals, involve in meaningful activities, are hopeful about the future, have a solid relationship with one or more adults, and they feel safe in their communities (Barankin & Khanlou, 2014). Ultimately, promoting resilience is connected to better mental health outcomes (Barankin & Kanlou, 2014).

Current resilience research is focused on supporting resilience through interventions to promote or protect mental health and development (Sapienza & Masten, 2011). In Sapienza and Masten's (2011) article on promoting resilience in children and youth, they identified widely replicated protective factors that are targets of resilience interventions. These factors include instilling positive relationships with caring adults, promoting effective parenting, enhancing problem-solving and self-regulation skills, increasing perceived efficacy and control, achievement motivation, creating positive relationships (e.g., friendships), maintaining spirituality, having beliefs that life has meaning, and having effective teachers and schools. The Impact Society has been developing curriculum resources for youth, educators, communities and families for over 25 years that centers around resilience. The signature program, HEROES I, was initially developed for junior high school students to equip them with tools needed to increase their resilience (e.g., instilling positive relationships and healthy friendships, increasing

perceived efficacy and control, understanding that life has meaning, and they add value, etc.). The HEROES I program will be further discussed below as it pertains to resilience.

Rationale for Evaluation

Schools are looking to implement evidence-based and evidence-informed programs to support student mental health. Resilience building programs have been shown to promote positive mental health outcomes in students (i.e., reducing anxiety and depression), improve academic performance, reduce risk behaviours such as substance abuse and delinquency, and help students build positive relationships with others (Durlak et al., 2011; Huang et al., 2017; Masten et al., 2012). By conducting a program evaluation of HEROES I, we aim to gain a better understanding of the program's impact in building student resilience, developing their character, and increasing their support networks. This will help to promote positive mental health outcomes and encourage the use of HEROES I as an evidence-based program in schools. In addition, program evaluation of HEROES I will allow for the systematic collection and analysis of information to assess the effectiveness of HEROES I and provide insights into its continuous improvement.

Statement of Purpose

The purpose of the HEROES I program evaluation is to assess the impact of HEROES I in achieving its intended outcomes. By conducting an evaluation of the program, we aim to provide evidence-based insights into the program's strengths and opportunities for improvement.

Program Design

Services Offered and Purpose

The HEROES I program is provided by the Impact Society, in addition to various other social-emotional skill building programs designed for students of various ages. The HEROES I program is for youth between the ages of 11 and 15. The curriculum is provided throughout the year across twelve classes taking approximately 12 – 20 hours to complete the curriculum. The curriculum can be taken in person or online. The design of the curriculum is centered on leading youth through an educational and experiential journey where they discover their dominant strengths, build self-confidence, understand healthy relationships and connect with others, and contribute to the greater good. The emphasis of the program is strength based.

The HEROES I program was created out of the belief that to build resilience, youth need to be surrounded by individuals that will support them through adolescence, while they are engaging in identity formation. The HEROES I program believes that everyone has internal strengths (gifts and abilities) that are unique to them. As youth participate in the HEROES I program, they start to understand their value resulting in a person who believes in themselves, chooses the right path, and lives with purpose. Specifically, youth who goes through the HEROES I program are supported to form positive attachments, feel empowered and optimistic about their future, understand that they are an important part of something greater than themselves, know that they are a value and will be treated fairly and equally, clearly understand innate value, know they will be supported to succeed, and learn to change and care for themselves.

History

The Impact Society, a charitable organization in Character Development Education, was established in 1994 in Calgary, Alberta (Impact Society, n.d). The Impact Society creates educational programs to enhance resilience and the ability to achieve success through building confidence, character, and integrity. The HEROES I program was founded in 2002 and started out as a program that was focused on character and leadership development for high school students in Edmonton, Alberta (Impact Society, n.d). The HEROES I program has now been expanded to schools across the provinces of Canada and has since reached over 150,000 youth across Canada (Impact Society, n.d.).

Target Population and Stakeholders

The target population includes students or groups of youth between the ages of 11 and 15 seeking a social-emotional skill building program that equips them with tools to enhance their capacity for resilience. The program is delivered in partnership with schools and school boards across Canada. The stakeholders are the Impact Society staff (Chris Primeau, Collette Toth, MacKenzie Weal, and Chris Kneeland).

Mission, Aims, and Goals

The following information was provided by Chris Primeau, Collette Toth, Mackenzie Weal, and Chris Kneeland from the Impact Society.

Mission

To provide a program for youth to evolve a positive resilience mindset and the capacity to thrive through supportive relationships and the belief in their potential to build the foundation for success.

Aims

The aims of the HEROES I program are as follows: (1) build student resilience; (2) develop student's characters through confidence, values, and integrity; (3) increase student's support networks.

Goals

The specific goals of the HEROES I evaluation are the following: (1) explore change in resilience over time; (2) explore change in student's development of confidence, character, and integrity; (3) explore change in positive support networks; (4) gain insights into student's experiences with HEROES I

Theoretical Underpinnings

The Brain-Science of Positive Change

The HEROES I program reflects the belief that change and learning occurs when the four dimensions of strengths-based learning are experienced (Immordino-Yang, 2016). The four essential dimensions of learning are: biological (feeling), psychological (thought), behavioural (experience), and convictional (empowered). To fulfill the biological dimension of learning, students need to feel safe and valued before they will take the risk of engaging in change. Positive change is connected to a relationship that demonstrates empathy, integrity, and affirmation of one's worth. To fulfill the psychological dimension, students need to be inspired to believe that they have the potential for success. This belief comes from the instructor's demonstrated competence, experience and optimism. To fulfill the behavioural dimension, students need to be offered ongoing learning opportunities that create a self-awareness of innate

strength. Lastly, to fulfill the convictional dimension, students must understand that they self-generate success and re-orient their perspective and values.

The four critical phases of change and learning are incorporated into the HEROES I program. The objective is for each participating youth to go through the four dimensions of learning. This will be facilitated by contact that helps build confidence, supported by positive relationships, and equipped with the necessary skills and competencies. Through exploring their strengths and experiential learning opportunities, students will be empowered to develop the capacity for positive and sustainable change, leading to resilience and flourishing.

Evaluation Method

Evaluation Design

The proposed evaluation includes a mixture of both qualitative and quantitative methods to study the outcomes of the HEROES I Program. Qualitative and quantitative methods are used concurrently in the form of a survey that includes both Likert-type and open-ended questions. The evaluation is primarily quantitative, with a smaller qualitative component that was included to gain insight into what students learned throughout the program.

A longitudinal research design was used which involves tracking a group of individuals over time to evaluate the effects of a program. Longitudinal cohort designs collect data from a cohort of participants at multiple time points, which allows the examination of changes in outcomes over time. Data was collected across four time points using a survey (November 22, 2021; April 13, 2022; June 20, 2022; September 19, 2022). On November 22, participants completed the post-HEROES I survey prior to participating in the HEROES I program for baseline data. On April 13, 2022, participants completed the first post-HEROES I survey upon completion of the HEROES I program. On June 20, 2022, participants completed the second

post-HEROES I survey 2 months upon completion of the HEROES I program. On September 19, 2022, participants completed the third post-HEROES I survey five months after completion of the HEROES I program.

Evaluation Questions

The purpose of the current evaluation is to answer questions based on the goals of the HEROES I evaluation:

- 1) Are there changes in student resilience across time (pre-HEROES I, post-HEROES I, 2-months post HEROES I, and 5-months post HEROES I)?
- 2) Are there changes in student's development of confidence across time (pre-HEROES I, post-HEROES I, 2-months post HEROES I, and 5-months post HEROES I)?
- 3) Are there changes in student's development of character across time (pre-HEROES I, post-HEROES I, 2-months post HEROES I, and 5-months post HEROES I)?
- 4) Are there changes in student's development of integrity across time (pre-HEROES I, post-HEROES I, 2-months post HEROES I, and 5-months post HEROES I)?
- 5) Are there changes in student's positive support networks across time (pre-HEROES I, post-HEROES I, 2-months post HEROES I, and 5-months post HEROES I)?
- 6) What do students learn from the HEROES I program?

Appendix 1 breaks down the evaluation questions into corresponding survey questions and methodology. These questions were developed in collaboration with Dr. David Nordstokke and the stakeholders from the Impact Society, (Chris Primeau, Collette Toth, and Jordan Remple) in June 2021.

Instrumentation and Data Analytics

Evaluation Measures

Connor-Davidson Resilience Scale – 10 items (CD-RISC-10)

The CD-RISC-10, to be referred to as CDRISC, is a 10-item scale that measures the basic components of resilience including your abilities, standards, and characteristics; trusting your intuition, enduring hard feelings, and recovering from stress; accepting change positively and having safe relationships; the amount of control you feel you have over your circumstances; and how spirituality influences you. The construct of resilience is measured on a 5-point Likert scale (*1=not at all true, 2=rarely true, 3=sometimes true, 4=often true, 5=true nearly all the time*). It has demonstrated adequate internal consistency of $\alpha = .85$ (Notario-Pacheco et al., 2011; Tourumem et al., 2021). The test-retest correlation was moderate between $r = .61$ and $.71$ depending on the sample (Notario-Pacheco et al., 2011; Tourumem et al., 2021). The CDRISC also showed adequate convergent validity with depressive symptoms ($r = -.51$), self-efficacy ($r = .31$), and self-mastery ($r = .21$; Tourumem et al., 2021).

Rosenberg Self-Esteem Scale (RSES)

The RSES is a 10-item scale that measures components of self-esteem such as self-confidence and self-depreciation. The construct of self-esteem is measured on a 4-point Likert scale (*1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree*). The RSES has demonstrated adequate internal consistency of $\alpha = .77$ (Rosenberg, 1965). The test-retest correlation for a 2-week interval was $r = .85$ (Silber & Tippett, 1965). RSES scores were correlated with depression ($r = .65$), anxiety ($r = .71$) and positive view of self ($r = -.37$; Cooper-Evans et al., 2008) showing adequate convergent validity.

Program Generated Item Questions

To support validity of the content of the evaluator generated items included in the survey that were not from published scales, the stakeholders of the program, Chris Primeau, Collette Toth, and Jordan Remple were consulted with to ensure questions were appropriate in capturing the aspects of the program that they aimed to evaluate. In particular, the survey questions were contextualized by aligning questions to the evaluation aims and reviewing and revising questions to reach a consensus, thus providing some evidence for the survey's content validity. Questions were designed to have a clear meaning with an unambiguous response on a Likert Scale. The Likert scale was as follows: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree. Open-ended questions were added to gather qualitative information to further elaborate on student experiences.

Quantitative data analysis

Means and standard deviations were calculated from the quantitative data. The mean was used to summarize the average scores of the impact of HEROES I on outcomes of interest (i.e., confidence and self-esteem, character, integrity, and positive supports). The standard deviation was used to measure the variability of the outcomes. Both the means and standard deviations were also used to compare different time points in the program evaluation to assess whether the program had differential effects after completion of the HEROES I program. Repeated-measured analysis of variance (ANOVA) was used to analyze change across multiple time points to identify patterns of change and the duration of the program effects.

Qualitative data analysis

Qualitative responses were grouped into themes using Inductive Thematic Analysis as outlined by Braun and Clarke (2012). Thematic analysis provides a systematic guideline for

capturing and examining features of the data without any pre-defined categories used to develop the themes. Codes were initially developed via reading through each response several times and themes were generated based on the codes that were present in the data.

Data collection concluded in September of 2022, and data analysis of the quantitative and qualitative data will be completed separately. Findings from both sets of analyses will be corroborated to maximize their unique contributions. Based on preliminary analyses, qualitative data may be quantized to maximize the utility and interpretability of the available data.

Results

Participants

A purposeful convenience sampling strategy was used to collect data. Inclusion criteria for participation requires the participants to be a Grade 7 or 8 student at Fox Run school in rural Alberta with parental consent and assent to participate in the study, and be able to read, write, and understand English fluently. Participants were given a pre-survey a week before starting the HEROES I program. Participants were given a post-survey upon completion of HEROES I and additional post-surveys 3 months and 6 months upon completion of HEROES I. Completion of the survey was optional. There is no predetermined number of participants required, and data collection ceased in September of 2022 at Fox Run School. A total of 87 participants (42 males, 41 females, and 3 non-binary youth) completed all 4 surveys between November 2021 and September 2022. Due to the small sample size of non-binary youth and the potential of increased Type I errors as a result of drastically unbalanced group sizes, they were excluded from the statistical analyses. Most students were 12-years of age with a range between 11 years old to 13 years old.

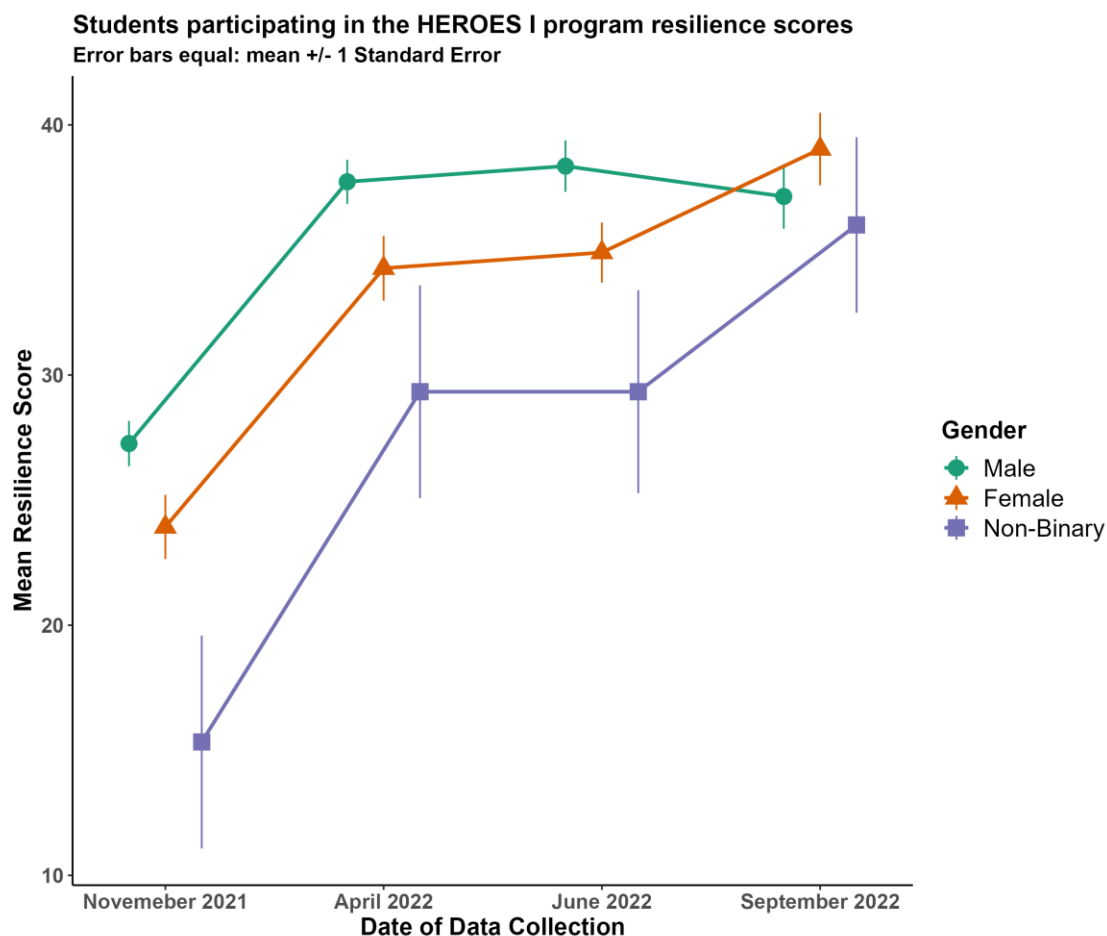
Quantitative Evaluation Findings

Evaluation Question #1: Change in Resilience

The first objective of the program evaluation was to explore change in resilience, this aligns with our first goal of the evaluation which was to measure student resilience across four different time points to look at change pre-HEROES I and post-HEROES I. A repeated measures ANOVA was conducted to examine the effect of time (pre-HEROES I, post-HEROES I, 2-months post-HEROES I, 5-months post-HEROES I) and gender (male, female) on resilience. Mauchly's test indicated that the assumption of sphericity has been violated, $\chi^2(5) = 41.02$, $p < .001$, so degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity. There was a main effect of time, revealing that there was a significant difference across the different time points, $F(1, 91) = 42.48$, $p < .001$, $\eta^2 = .46$ showing an increase in resilience (see Figure 1 for graphic of this relationship). Post-hoc analyses were conducted using Tukey's HSD to determine where the significant differences across the time points lie. There was a significant difference between time 1 (Pre-HEROES I; $M = 25.34$) and time 2 (post-HEROES I; $M = 35.61$), $p < .001$, time 1 and time 3 (2-months post-HEROES I; $M = 36.42$), $p < .001$, and time 1 and time 4 (5-months post-HEROES I; $M = 37.74$), $p < .001$. This indicates that both male and female students showed an increase in resilience immediately after participating in the HEROES I program (time point 2). As well, students maintained this increase in resilience 2-months (time 3) and 5-months (time 4) after participating in the HEROES I program.

Figure 1

Change in Resilience Pre-HEROES I, Post-HEROES I, 2-months & 5-months Post-HEROES I



Evaluation Question #2: Change in Confidence and Self-Esteem

The second objective of the program evaluation was to investigate the development and maintenance of student confidence. This aligns with the second goal and second research question of the evaluation which was to measure student development of confidence across time. Students answered questions on concepts related to both confidence and self-esteem in the HEROES I program using five questions on a scale of 1=Strongly Disagree to 5=Strongly Agree and two questions (questions 5 and 7) on a scale of 1 to 10. Research has shown that self-esteem

can influence confidence, as individuals with high self-esteem may be more likely to believe in their abilities and have higher levels of confidence (Casale, 2020). The means and standard deviations for each of the five questions on confidence and self-esteem is reported in Table 2. Percent change is a measure of the degree of increase or decrease in a quantity (in this case confidence and self-esteem). A repeated measures ANOVA was also conducted with the 5 items on the five-point Likert scale (item 1-4 and 6). Mauchly's test indicated that the assumption of sphericity has been violated, $\chi^2(5) = 19.83, p=.001$, so degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity. No significant difference was found between students at different time points on confidence and self-esteem, $F(2, 78) = 1.99, p = .123, \eta^2 = .04$.

Table 2*Confidence and Self-Esteem Evaluation Questions*

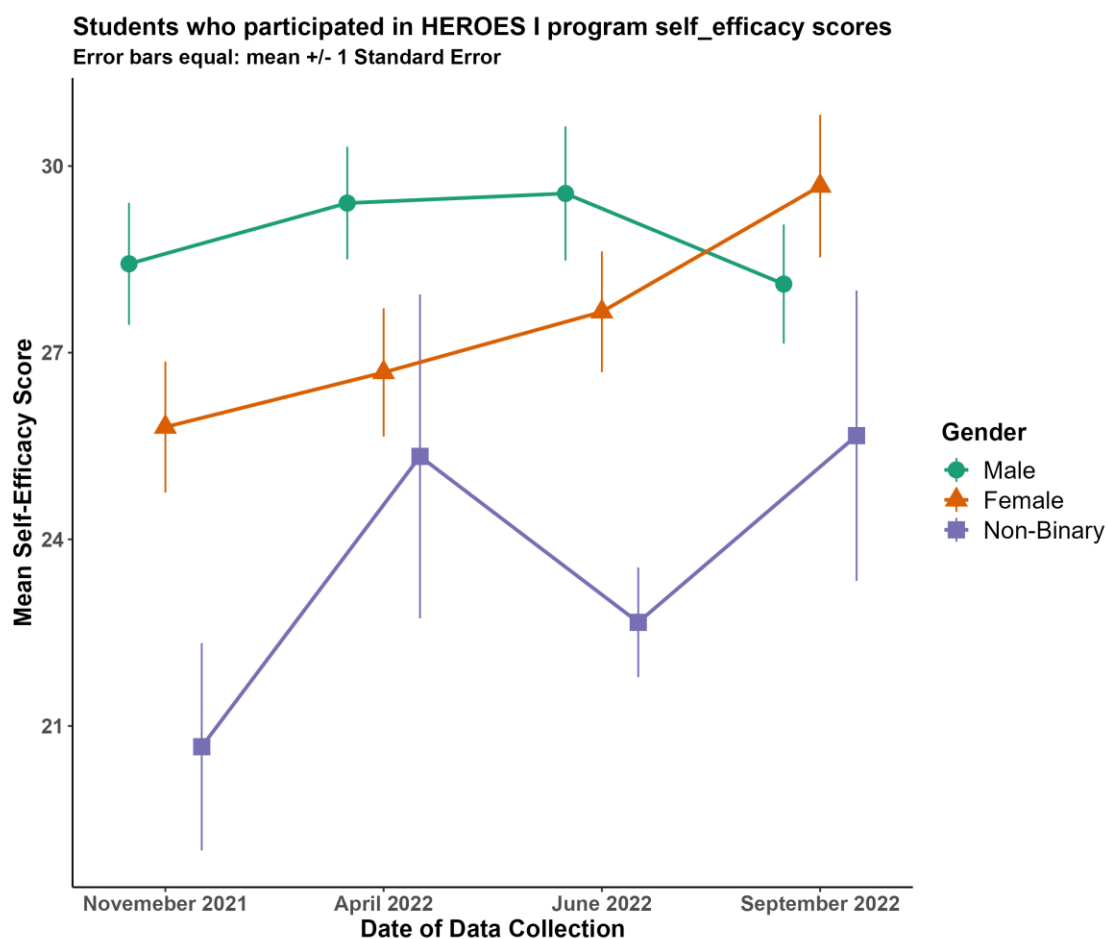
	Question	Pre (SD)	Post (SD)	2- Months Post	5- Months Post	Mean Change (SD)	% Change
1.	I am able to identify my gifts & abilities	3.80 (.85)	3.80 (.85)	3.83 (1.05)	3.95 (.87)	0.15 (1.15)	4.0%
2.	I am able to identify what makes me successful	3.72 (1.05)	3.78 (1.01)	3.89 (.89)	4.13 (.70)	0.41 (1.18)	11%
3.	I am able to identify barriers that stop me from being the best version of myself	3.62 (1.03)	3.59 (1.04)	3.74 (.92)	3.98 (.93)	0.36 (1.30)	9.9%
4.	I am a person of value (e.g., I have gifts & abilities I can use)	3.79 (1.11)	3.92 (1.03)	3.88 (1.10)	4.15 (.86)	0.36 (1.22)	9.5%
5.	On a scale of 1 to 10, where 1 is “not at all” and 10 is “completely”, overall, how confident do you feel with your gifts & abilities	6.85 (2.20)	7.24 (2.23)	7.03 (2.29)	7.67 (1.97)	0.82 (3.28)	12.0%

6.	Self-esteem is important	4.11 (.69)	4.10 (.90)	4.40 (.69)	4.35 (.71)	0.24 (.97)	5.8%
7.	On a scale of 1 to 10, 10 being the highest. How would you rate your self-esteem?	6.56 (2.26)	7.10 (2.25)	6.94 (2.18)	7.68 (1.94)	1.12 (3.04)	17%

Students also completed the Rosenberg Self-Esteem Scale Research. Using a repeated-measures ANOVA, no significant difference was found between students at different time points, $F(3, 48) = 1.47, p = .224, \eta^2 = .03$ (see Figure 2).

Figure 2

Change in Self-Esteem Pre-HEROES I, Post-HEROES I, 2-months & 5-months Post-HEROES I



Evaluation Question #3: Change in Character

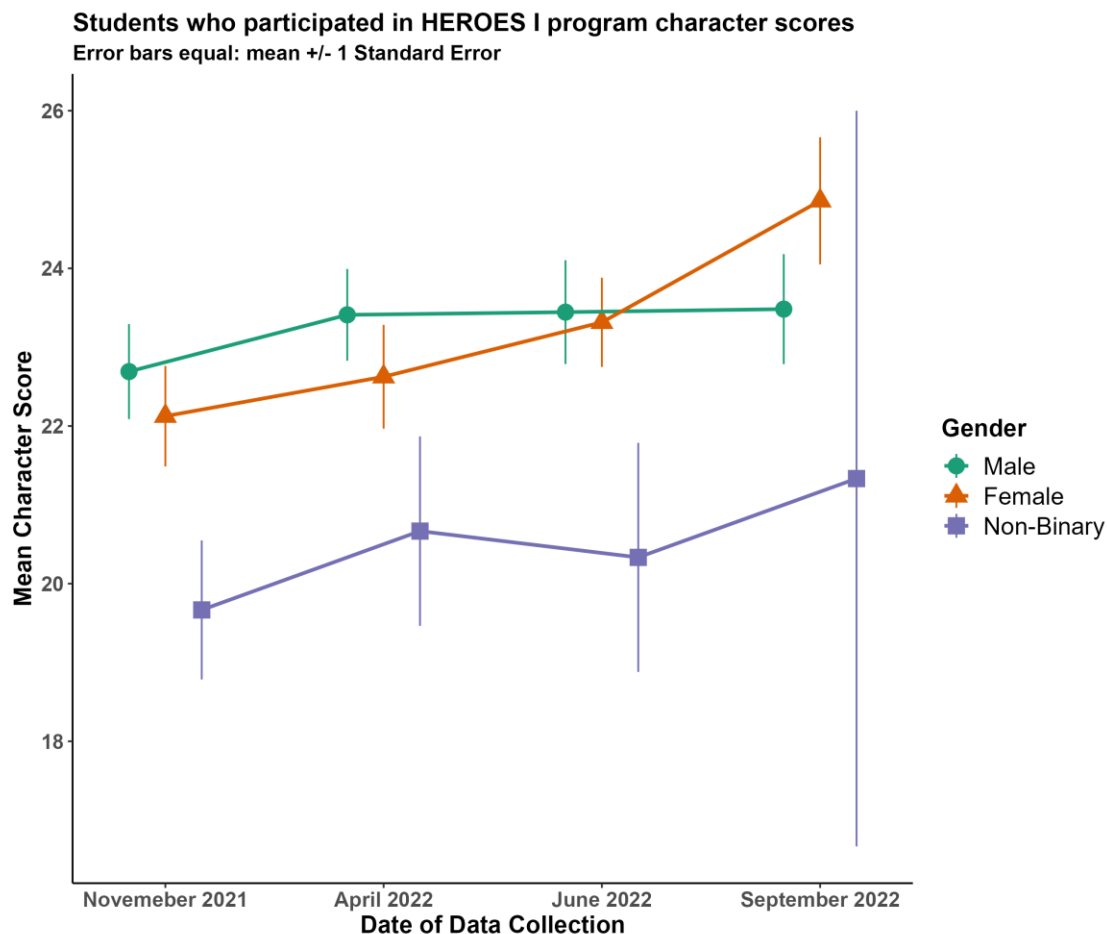
The second objective of the program evaluation was to also investigate the development and maintenance of character. This aligns with the second goal of the evaluation and the third research question to measure student's development of character across time. Students were asked to answer questions on concepts related to character building using six questions on a scale of 1=Strongly Disagree to 5=Strongly Agree (see Table 3). Table 3 indicates positive change in each of the six evaluation questions for character, indicating that students experience a positive change in their development of character post-HEROES I. A repeated measures ANOVA was conducted with the six items for character on the five-point Likert scale to examine the effect of time (pre-HEROES I, post-HEROES I, 2-months post-HEROES I, 5-months post-HEROES I) and gender (male, female) on character development. Mauchly's test indicated that the assumption of sphericity has been violated, $\chi^2(5) = 40.87, p < .001$, so degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity. There was a main effect of time, revealing that there was a significant difference across the different time points, $F(1, 92) = 3.57, p = .034, \eta^2 = .07$ showing an increase in character development (see Figure 3). Post-hoc analyses were conducted using Tukey's HSD to determine where the significant differences lie. There was a significant difference between time 1 (Pre-HEROES I; $M = 22.41$) and time 4 (5-months post-HEROES I; $M = 24.34$), $p < .001$. This indicates that both male and female students showed an increase in the development of character after 5-months in participating in the HEROES I program (time point 4).

Table 3*Character Evaluation Questions*

	Question	Pre (SD)	Post (SD)	2- Months Post	5- Months Post	Mean Change (SD)	% Change
1.	I am able to identify what I can do to make a better choice	3.77 (.84)	3.91 (.82)	3.94 (.79)	3.97 (.96)	0.20 (1.39)	5.3%
2.	I am able to identify what is in the way of making a better choice (e.g., walls/challenges)	3.63 (.93)	3.80 (.77)	3.75 (.87)	3.98 (.79)	0.35 (1.32)	11%
3.	I am able to change what is in the way of making a better choice (e.g., taking down your walls/challenges and using them as your stepping stones to success)	3.54 (.96)	3.71 (.84)	3.68 (.93)	3.90 (.86)	0.36 (1.26)	10.2%
4.	My success is my responsibility	4.23 (.71)	4.23 (.83)	4.35 (.62)	4.32 (.72)	0.09 (1.07)	2.1%
5.	I have strategies that I can use to make a positive change in myself	3.63 (.88)	3.66 (.89)	3.73 (.88)	3.93 (.84)	0.30 (1.29)	8.3%
6.	I have strategies that I can use to make a positive change in the world around me	3.48 (.94)	3.64 (.94)	3.72 (.89)	3.92 (.85)	0.44 (1.38)	12.6%

Figure 3

Change in Character Pre-HEROES I, Post-HEROES I, 2-months & 5-months Post-HEROES I



Evaluation Question #4: Change in Integrity

The second objective of the program evaluation was to also investigate the development and maintenance of integrity. This aligns with the second goal of the evaluation and the fourth research question to measure student's development of integrity across time. Students were asked to answer questions on concepts related to integrity using six questions on a scale of 1=Strongly Disagree to 5=Strongly Agree (see Table 4). Table 4 indicates some positive change in the integrity evaluation questions. A repeated measures ANOVA was also conducted with the

6 items on the five-point Likert scale. Mauchly's test indicated that the assumption of sphericity has been violated, $\chi^2(5) = 29.41, p < .001$, so degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity. No significant difference was found between students at different time points on integrity, $F(2, 15) = .53, p = .603, \eta^2 = .01$.

Table 4*Integrity Evaluation Questions*

	Question	Pre (SD)	Post (SD)	2- Months Post	5- Months Post	Mean Change (SD)	% Change
1.	I understand the impact of my actions	4.20 (.55)	4.25 (.55)	4.16 (.68)	4.17 (.74)	-0.03 (.89)	0%
2.	I believe I can change what might happen tomorrow by what I do today	3.68 (.98)	3.80 (.91)	3.79 (.91)	3.98 (.85)	0.30 (1.33)	8.2%
3.	I believe I have the power to achieve the goals I set out for myself	3.70 (1.04)	3.90 (.92)	3.98 (.91)	4.05 (.81)	0.35 (1.43)	9.5%
4.	I believe other people have gifts and abilities	4.66 (.59)	4.49 (.61)	4.51 (.64)	4.35 (.66)	-0.31 (.80)	-6.7%
5.	I encourage others to achieve with their gifts and abilities	4.15 (.79)	4.18 (.74)	4.24 (.72)	4.27 (.76)	0.12 (.94)	2.9%
6.	There are choices I can make that will make my relationships stronger	3.99 (.74)	4.24 (.67)	4.19 (.76)	4.17 (.85)	0.18 (1.10)	4.5%

Evaluation Question #5: Change in Positive Supports

The third objective of the program evaluation was to investigate change in positive support networks. This aligns with the third goal of the evaluation and the fifth research question to explore change in positive support networks across time. Students were asked to answer questions on concepts related to positive supports using four questions on a scale of 1=Strongly Disagree to 5=Strongly Agree (see Table 5). Table 5 indicates little change in the positive

supports. A repeated measures ANOVA was also conducted with the 4 items on the five-point Likert scale. Mauchly's test indicated that the assumption of sphericity has been violated, $\chi^2(5) = 32.88, p < .001$, so degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity, no significant difference was found between students at different time points on integrity, $F(2, 17) = 2.43, p = .088, \eta^2 = .05$.

Table 5

Positive Supports Evaluation Questions

	Question	Pre (SD)	Post (SD)	2- Months Post	5- Months Post	Mean Change (SD)	% Change
1.	I am able to identify a number of positive people in my life	4.27 (.73)	4.25 (.77)	4.25 (.65)	4.27 (.78)	0.00 (1.20)	0%
2.	I feel like I have good support in my community (e.g., family, mentor, family, teachers)	4.26 (.77)	4.07 (.95)	4.19 (.96)	4.12 (.78)	1.16 (1.33)	-3.4%
3.	I am comfortable going to someone in my life when I need support	3.52 (1.13)	3.52 (1.11)	3.58 (1.16)	3.75 (1.00)	.53 (1.43)	6.5%
4.	I have people in my life I respect and look up to	4.45 (.71)	4.29 (.72)	4.23 (.81)	4.35 (.68)	-0.10 (1.13)	-2.2%

Evaluation Question #6: Qualitative Question

Experience with HEROES I

The fourth objective of the program evaluation was to gain insights into student's experiences of the HEROES I program. This aligns with the fourth goal of the evaluation and the sixth research question to understand what students learn from the HEROES I program.

Participants responded to the following open-ended question: "What is the most important thing you learned in HEROES I?" Responses were grouped into themes using Thematic Analysis as

outlined by Braun and Clarke (2012; Table 6). A total of 70 students provided responses to the question.

Table 6

Most Important Thing Learned

Theme	Subtheme	Description	Example Quotes
Changing perception of others	Everybody has worth	Belief that everybody has worth or value	<i>“Everyone is important and worth it”</i> <i>“Every single person has gifts and abilities”</i>
	We are all human	Belief that we are all human	<i>“No one is a nobody. We are all human”</i>
	Everybody has struggles	Belief that everyone has struggles and go through hardships	<i>“Everyone has struggles in their life”</i> <i>“You never know what other people are struggling with”</i>
	Other people go through similar situations	Belief that other people go through similar situations	<i>“Other people have similar thoughts to me”</i>
	Do not judge others	Avoiding making negative assumptions about others	<i>“Don’t judge people”</i>
Kindness and respect for others	Be kind to others	Treating others with kindness	<i>“Be nice to others”</i> <i>“Be a good human being, it will take you far”</i> <i>“To be kind to others around you”</i> <i>“To never bully or be mean”</i> <i>“To care for others”</i>

	Be respectful to others	Treating others with respectful	<i>“How to show others more respect”</i>
Gained self-understanding	Ability to change	Understanding that you are able to change	<i>“Whatever may happen to you in life, you can always change”</i> <i>“What we think and where we are does not define our future”</i>
	Ability to find happiness	Understanding that you are able to find happiness	<i>“You can always be happy”</i> <i>“How to deal with sadness”</i>
	Ability to find positive supports	Understanding that they are not alone	<i>“I learned that I am not alone”</i> <i>“You have people that are there for you”</i>
Self-Improvement	Self-confidence	Gained self-confidence	<i>“I have lots of confidence”</i>
	Self-esteem	Increased self-esteem	<i>“To have good self-esteem”</i> <i>“Keep a good self-esteem”</i>
Drawn to action	Listening skills	Understanding the importance of listening skills	<i>“To listen”</i>
	Work hard	Understanding or continuing to work hard	<i>“To work hard... and I can face problems that come my way”</i>
	Relaxation	Taking breaks for relaxation	<i>“Learn how to relax better”</i>

	Goal setting	Creating and setting goals for oneself	<i>“I learned that it is important to set goals for yourself”</i>
Seeking help	How and when to get help	Knowledge of how and when to ask for help	<i>“To get help if you need help” “It’s ok to tell people what has happened to you or things you know that you shouldn’t”</i>
Knowledge on positive supports	Important of good relationships	Understanding the importance of good relationships	<i>“The importance of good relationships (i.e., friends, family)”</i>
	Good friendships	Understanding what good friendships look like	<i>“To keep relationships that mean lots”</i>
Self-compassion	Be yourself	Understanding the importance of being true to yourself	<i>“To be myself”</i>
	Look after yourself	Understanding the importance of taking care of one’s physical and mental health	<i>“To look after yourself when no one is there to look after you” “Take care of yourself”</i>
	Be kind to yourself	Understanding the importance of treating yourself with the same level of kindness as they would others	<i>“To always love yourself” “To feel good about myself”</i>
	Don’t give up	Persevering and persisting through difficult times	<i>“To not give up and keep moving” “To always keep going in life”</i>

Summary of Results

The purpose of this evaluation was to assess responses to five quantitative questions and one qualitative question designed according to the goals of the evaluation of the HEROES I program.

Objective 1

The first objective of the program evaluation was to explore change in resilience, students showed a significant increase in resilience after participating in the HEROES I program. Students also maintained this increase in resilience 2-months and 5-months after participating in the HEROES I program. Resilience is a skill that can be developed and improved with practice, just like any other skill (Yeager & Dweck, 2012). The HEROES I program provided students with practical strategies and techniques for coping with stressors, facing challenges, and overcoming adversity. That continued use of these skills over time contributed to their ongoing gains in resilience as shown in the increase of resilience using the CD-RISC-10 measure. The HEROES I program helped students to become more aware of their own thoughts, feelings, and behaviours, which is a key component of resilience. By developing this greater self-awareness, these students may be better equipped to identify and manage stressors and challenges as they arise.

Objective 2

The second objective of the program evaluation was to investigate the development and maintenance of student confidence, character, and integrity. Resilience, confidence, and self-esteem are related to each other in several ways. When a person is resilient, they are able to bounce back from setbacks and cope effectively with adversity. This can lead to increased confidence and self-esteem because of the feeling of empowerment and capability to handle

situations (McGee, 2020; Veselska et al., 2009). There were positive changes between 4 – 17% in confidence and self-esteem post-HEROES I. Completing the HEROES I program provided students with a sense of achievement, skill acquisition, increased self-knowledge, and personal growth, all of which contributed to an increase in confidence following the completion of the HEROES I program. However, there were no significant changes in self-esteem. There may be several reasons to why the HEROES I program did not produce significant findings in self-esteem in this group of participants. In this case, the sample of participants who participated in the HEROES I program already had high levels of self-esteem at the beginning of the program. Thus, there may not have been much more room for improvement in self-esteem scores, leading to non-significant findings.

With increases in resilience, it is expected that students will also show a change in character. With the skills and strategies learned in the program, students may be better equipped to handle setbacks, leading to an adaptive character. Students showed positive changes in character development between 2.1% - 12.6% after the HEROES I program. In addition, students showed an increase in character development 5-months after participating in the HEROES I program versus before participating in the HEROES I program. A part of character development is being able to identify good choices, barriers to making good choices, understanding ways to make better choices, and learning how to make a change in oneself and the world. The HEROES I program had a positive impact on student's character development which can lead to changes in behaviour and attitude.

Students were also taught to understand the impact their actions have on themselves and the world, how to change their actions and choices to impact their future selves and relationships, and to understand other people's gifts and abilities. These lessons were to help student's develop

integrity. Students showed positive changes in integrity between 2.9% - 9.5% after the HEROES I program. However, no significant results were found between students at different time points on integrity. Integrity is an essential component of student development, as it is the foundation upon which respect, trust, and ethical behaviour are built. The sample of participants who participated in the HEROES I program already had high levels of integrity at the beginning of the program. Thus, there may not have been much more room for improvement in integrity scores, leading to non-significant findings.

Objective 3

The third objective of the program evaluation was to investigate change in positive support networks. Students showed some positive change in developing positive support networks. Positive support networks are essential for students as they navigate the challenges of adolescence and develop into young adults. Students showed a 6.5% change after the HEROES I program in comfortability going to someone in their life when they need support. However, no significant results were found between students at different time points. In the HEROES I program, students learn to identify positive supports in their lives and where to go to get support. Participants in the program already had high levels of positive supports at the beginning of the program, thus, may not have shown much improvement in positive supports throughout the program.

Objective 4

The fourth objective of the program evaluation was to gain insights into student's experiences of the HEROES I program by sharing what they learned from the program. Participants in the HEROES I program shared what they learned and took away from the HEROES I program. Eight themes emerged that were tied to the objectives of the HEROES I

program evaluation (see Table 7): 1) Changing perception of others; 2) kindness and respect for others; 3) gained self-understanding; 4) self-improvement; 5) drawn to action; 6) seeking help; 7) knowledge on positive supports; and 8) and self-compassion.

Table 7

Theme Representation from the Student Perspective

Theme	Objectives
Changing perception of others	Developing student's character through values
Kindness and respect for others	Developing student's character through integrity
Gained self-understanding	Developing student's character and increasing positive support networks
Self-improvement	Developing student's confidence
Drawn to action	Developing student's character through integrity
Seeking help	Increasing student's positive support networks
Knowledge on positive supports	Increasing student's positive support networks
Self-compassion	Increasing student's resilience

Theme 1 (changing perception of others) includes the belief that everyone has worth and values. It also includes the belief that we are all human with similar situations and struggles. Theme 1 fits into the second aim of the HEROES I program in developing student's character through values. Theme 2 (kindness and respect for others) includes treating others with kindness and respect. Theme 2 also fits into the second aim of the HEROES I program in developing student's character through integrity. Participant's open-ended answers grouped into theme 1 and 2 indicates that participants are developing character change post-HEROES I. Theme 3 (gained

self-understanding) includes understanding that one can change, can find happiness, and can find positive supports. Theme 3 fits into the second and third aim of the HEROES I program in developing student's character and increasing student's support networks. Participant's open-ended answers grouped into theme 3 indicates that participants are developing character change and an increase understanding of positive support networks. Theme 4 (self-improvement) includes gaining self-confidence and self-esteem. Theme 4 fits into the second aim of the HEROES I program in developing student's confidence. Participant's open-ended answers grouped into theme 4 indicates that participants are experiencing an increase in self-confidence and self-esteem. Theme 5 (drawn to action) includes understanding the importance of skills such as listening, working hard, relaxation, and goal setting. Theme 6 (seeking help) and theme 7 (knowledge on positive supports) fits into the third aim of the HEROES I program in increasing student's support networks. Participant's open-ended answers grouped into theme 3 indicates that students are understanding the importance of good relationships and know when to ask for help. Lastly, theme 8 (self-compassion) includes being yourself, looking after yourself, being kind to yourself, and not giving up. Theme 8 fits into the first aim of the HEROES I program in increasing resilience.

Summary

In summary, the HEROES I program provides students with skills and tools to build resilience, confidence, self-esteem, character, integrity, and a positive support network that have a lasting effect month after completion of the program. This continued improvement may indicate that students continue to practice the skills and strategies they learned, which can lead to further improvement that was seen 5-months after HEROES I. In addition, the aim of HEROES I is to help students develop these skills that can be applied to a variety of situations. It is likely

that students are applying what they learned to other areas of their lives. Overall, students are experiencing an increase in resilience, confidence, self-esteem, character, integrity, and positive support networks months after completion the program likely due to continued practice of skills taught and the ability to generalize these skills in a variety of situations

Strength and Limitations of Evaluation

There are several strengths in this program evaluation of the HEROES I program:

1. This program evaluation met the met the following objectives by providing evidence for (1) Change in resilience; (2) Development and maintenance of student confidence, character, and integrity; (3) Change in positive support networks; (4) Insights into student's experiences of the HEROES I program.
2. This longitudinal program evaluation allows for a more in-depth understanding of the program's effects over time. It allowed the evaluators to track changes in participants' outcomes and identify trends, which provides insight into the program's effectiveness.
3. A longitudinal evaluation can help to improve the validity of the findings as it reduces the impact of external factors that could influence the results at a single point in time. By comparing the results of the different time points, the evaluator is able to control for any extraneous variable and attribute changes to the program's effects.
4. The use of reliable and valid measures in this program evaluation ensured that the data collected is accurate, reliable, and can be used to make informed decisions about the effectiveness of the program.

The findings of the present evaluation are in line with prior preliminary research investigating HEROES I and its effectiveness at building student resilience and developing character. However, it should be highlighted that there are factors that limit the applicability and

generalizability of these findings. The population may have limited generalizability to specific populations or contexts such as to rural students. As well, there was approximately 40% attrition or loss of participants over the course of the program evaluation. This reduced the sample size and could lead to biased results if participants who did not complete the post-HEROES I surveys were systematically different from those who completed the survey. Lastly, the HEROES I specific questions related to character development and positive supports were designed specifically to represent the evaluation aims. These questions were not tested for reliability and validity which limits conclusions that can be drawn regarding consistency and constructs. The following recommendations are suggested based on the results and limitations of the HEROES I program evaluation.

Recommendations

Based on the results of the current program evaluation, the following recommendations have been presented.

1. Findings indicate a significant positive change in resilience after participating in the HEROES I program, it may be beneficial for more Junior High Schools to implement the HEROES I program to increase student resilience, especially for students at risk.
2. A larger sample size will be beneficial to increase the reliability and accuracy of the evaluation findings. A larger sample size can be more representative of the population being studied. This will increase generalizability of the finds and help ensure that the results are not just specific to a particular subset of the population.
3. An urban school comparison group as a comparison group as urban and rural schools often operate in very different contexts. For example, urban schools may face different

challenges related to poverty, crime, and diversity, while rural schools may face challenges related to isolation, limited resources, and access to services. By comparing the resilience of urban and rural school students, we can better understand how these contextual differences impact resilience.

4. Further longitudinal analysis of student's a year after the completion of the HEROES I program to track changes overtime and examine the patterns and trajectories of those changes. It may be beneficial to provide HEROES I booster sessions depending on this data.
5. Further refinement to the evaluation questions to improve clarity. Focusing on just resilience questions will provide a more in depth understanding of how and what aspects of resilience are impacted.
6. Shortening evaluation questions to save time on respondents. Shortening questions will require less time to answer, which can reduce the burden on respondents.

Conclusion

This evaluation resulted in a clearer understanding of the outcomes and effectiveness of the HEROES I program in equipping students with tools to enhance their resilience through building confidence, character, and integrity. Findings from this evaluation corroborate previous preliminary research on the HEROES I program and also provides additional insight into student's outcomes and experiences of the HEROES I program. Participants experienced an increase in resilience post-HEROES I and they also maintained high levels of resilience 2- and 5-months post-HEROES I. As well, participants showed some change in confidence, character, and

integrity post-HEROES I. Participants in this evaluation indicated high levels of positive supports pre-HEROES I and thus, there was no significant change in positive supports post-HEROES I. Qualitative responses about what students learned in the HEROES-I program aligned with the objectives of this program evaluation.

The aforementioned outcomes of the present evaluation are anticipated to have far reaching consequences in the implementation of the HEROES-I program in schools. Schools may want to implement the HEROES I program to increase student resilience, especially for students at risk. In addition, the long-term implications of resilience and development of confidence, character, and integrity are likely to improve student well-being and impact how students approach challenges. Offering the HEROES-I program is a feasible option to increase capacity to support students at the classroom level.

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Appendices

Appendix 1

Questions included to address each of the evaluation questions.

Evaluation Questions	Survey Questions	Methodology	Construct Measured
Are there changes in student resilience across time?	a. Conner Davidson Resilience Scale – 10 items	a. – e. Likert Scale (not at all true, rarely true, sometimes true, often true, true nearly all the time)	Resilience
Are there changes in student’s development of confidence and self-esteem across time	<ul style="list-style-type: none"> a. I am able to identify my gifts and abilities b. Self-esteem is important c. Rate your self-esteem d. I am able to identify what makes me successful e. I am able to identify barriers that stops me from being the best version of myself f. I am a person of value (e.g., I have gifts and abilities I can use) g. On a scale of 1 to 10, where 1 is “not at all” and 10 is “completely,” overall, how confident do you feel with your gifts & abilities h. On a scale of 1 to 10, 10 being the highest. How would you rate your self-esteem? i. Do you have a plan to maintain or increase your confidence? Please explain your answer. j. Rosenberg Self-Esteem Scale 	<ul style="list-style-type: none"> a. – f. Likert Scale (strongly disagree, disagree, neutral, agree, strongly agree) g, - h. Likert Scale (1=lowest...10=highest) i. Open ended question j. Likert Scale (strongly disagree, disagree, agree, strongly agree) 	Confidence and self-esteem
Are there changes in student’s development of character across time	<ul style="list-style-type: none"> a. I am able to identify what I can do to make a better choice b. I am able to identify what is in the way of making a better choice (e.g., walls/challenges) c. I am able to change what is in the way of making a better choice (e.g., taking down your walls/challenges and using them as your stepping stones to success) d. My success is my responsibility e. I have strategies that I can use to make a positive change in myself 	a. – f. Likert Scale (strongly disagree, disagree, neutral, agree, strongly agree)	Character

- f. I have strategies that I can use to make a positive change in the world around me

Are there changes in student's development of integrity across time	<ul style="list-style-type: none"> a. I understand the impact of my actions b. I believe I can change what might happen tomorrow by what I do today c. I believe I have the power to achieve the goals I set out for myself d. I believe other people have gifts and abilities e. I encourage others to achieve with their gifts and abilities f. There are choices I can make that will make my relationships stronger g. List the things you are most grateful for 	<ul style="list-style-type: none"> a. – f. Likert Scale (strongly disagree, disagree, neutral, agree, strongly agree) h. Open ended question 	Integrity
Are there changes in student's positive support networks across time?	<ul style="list-style-type: none"> a. I am able to identify a number of positive people in my life b. I feel like I have good support in my community (e.g., friends, mentor, family, teachers) c. I am comfortable going to someone in my life when I need support d. I have people in my life I respect and look up to 	<ul style="list-style-type: none"> a. – d. Likert Scale (strongly disagree, disagree, neutral, agree, strongly agree) 	Positive relationships
What do students learn from the HEROES I program?	<ul style="list-style-type: none"> a. What is the most important thing you learned in HEROES I? 	<ul style="list-style-type: none"> a. Open ended question 	Student experiences