FLOURISH

A strengths-based resilience (SBR) approach to support students' transition from secondary to post-secondary education (PSE)

Final Report submitted to:

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UNIVERSITY OF TORONTO

The content itself -
happiness, flow, meaning, love, gratitude,
accomplishment, growth, better relationships
- constitute human flourishing.
Learning that you can have more of these things is life changing.
Glimpsing the vision of a flourishing human future is life changing.

Martin Seligman, Page 2, Forward to *Flourish* 2011

It takes a village to translate into concrete outcomes the complexities of mental health and transition. The narratives, the supporting evidence, and the insights that unfold in the following pages were not possible without the support and strengths of many individuals and institutions. Together, our commitment and community enabled us to coalesce the countless pieces of this project into a whole.

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Flourish Core Team + Ambassadors

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EXECUTIVE SUMMARY

It is our great pleasure to submit this final report on our work funded by the Mental Health Innovation Fund (MHIF) grant awarded to the University of Toronto Scarborough (UTSC) in 2015. We are grateful for the opportunity that the Ministry of Advanced Education and Skills Development (MAESD) provided us to develop and evaluate effectiveness of resilience and well-being interventions for students transitioning from secondary to post-secondary education.

We based our resilience and wellbeing programs on Corey Keyes Model of Complete Mental Health. This model posits that mental health ought to consider both the absence of symptoms as well as the presence of well-being.

COREY KEYES MODEL OF COMPLETE MENTAL HEALTH

Source: https://goo.gl/yY2nJq

In the 2-year (2015-17) Mental Health Innovation Fund (MHIF) funding period, we accomplished all goals outlined in our proposal *Flourish: A Strengths-Based Resilience (SBR) Approach to Support Students' Transition from Secondary to Post-Secondary Education* and set out in Appendix A. With strong executive leadership and teamwork (Appendix B) as well as extensive collaboration on and off campus (Appendix C), our programs Flourish and Strengths-Based Resilience (SBR) have produced a legacy of evidence-based resilience and wellness programming and resources (Appendices D, E and F). They have also yielded research findings, approved by research ethics boards, from four student populations, revealing important markers of resilience and well-being for students transitioning from high school to and through university.

Our three key findings are:

1. **Students in post-secondary education are accessing counselling services at a higher rate than 5 years ago.** Analyzing the longitudinal data from 2,943 first-year students visiting counselling services, we found an 11-percent increase in first-year students accessing counselling services at UTSC in the past 5 years (2012-17), although we did not find a corresponding increase in severity of psychiatric distress. Reduced stigma against mental illness may partially explain this increase in usage.

2. **There is a positive relationship between the mental health of students entering university, their time to graduation and their use of health and counselling services.** Our exploration of the mental health of students utilized longitudinal data of 2,943 first-year students from 2012-17 who completed measures of well-being and psychiatric distress. Overall, we found no substantial increase from cohort to cohort, in the level of stress or well-being. However, when analyzed from the lens of the Complete Mental Health Model, that is, integrating stress and well-being in terms of Flourishing (high well-being, low stress) or Languishing (low well-being, high stress) or Moderate (neither flourishing nor languishing), we found an 8-percent decline in the number of students who entered university in a Flourishing state. We also found a 14-percent increase in students who were languishing. Although flourishing and languishing students did not differ significantly on Cumulative Grade Point Average (cGPA), Flourishing students were twice as likely to graduate within 5 years compared to their languishing counterparts. Languishing students were four times more likely to use health and counselling services.

3. **Compared to intervention as usual, SBR is effective in reducing stress, and increasing well-being and student engagement.** We evaluated the effectiveness of a 10-sesssion intervention, Strengths-Based Resilience (SBR), completed by 172 participants including university students, high school students in the regular system and adolescents completing one of two specialized programs at an outpatient hospital setting.

Many post-secondary institutions in Ontario offer valuable academic transition programs to help students navigate the new academic environment. Most specialized programs focus on remediating high school academic skills that might not be up to par for post-secondary studies, such as writing, research and math. We believe ours is unique in focusing on supporting directly the psycho-social factors of transition. Remediating educational deficits will not alone engage students intellectually, connect them with communities, or nurture them emotionally. Complementing academic transition programs with a focus on students' unique strengths, talents and abilities, as we have learned from this project, increases the likelihood that we will nurture Millennial minds and spirits (Shushok & Kidd, 2015).

Our project attempted to nurture the mindset of students through Flourish – a preventative program which aims to help First Year university students assess and enhance their strengths. Through our SBR program, we helped students struggling with mental health issues, including transition related concerns and learn skills to enhance their well-being and resilience. Students who completed the SBR program reported less stress, lower stigma, and enhanced well-being and resilience, compared to other students who participated in treatment-as-usual in the comparison group.

Our report concludes with 27 recommendations directed to 4 main audiences as summarized on the following page.

Secondary and Post-Secondary Administrators

1. Cultivate students' character, enhance resilience and develop habits of mind and spirit.
2. Adopt a holistic and comprehensive approach to mental health.
3. Build institutional support for well-being and resilience program goals and align them with the institution's strategic goals.
4. Collaborate with the Registrar to embed well-being programming into the process of recruitment, registration and retention.
5. Anticipate infrastructure needs to launch program and scale it over time.
6. Cultivate conditions that enable flourishing and address languishing.
7. Utilize systems capabilities to enhance online assessment potential.
8. Make post-secondary education a hub for credit courses on personal development.

Mental Health Service Professionals

9. Systematically track which students access services, when and why.
10. Investigate the drivers of and obstacles to self-referral.
11. Explore ways to expedite referrals to appropriate services in a timely fashion.
12. Educate Faculty to make effective referrals that alleviate distressful and risky student situations.
13. Build expertise of clinical staff to respond to top presenting concerns.
14. Educate broader community about long-term nature and benefits of well-being and resilience programming.

Student Service Professionals

15. Highlight the long-term importance of the first-year experience as the most crucial year of post-secondary.
16. Implement programs that anticipate the multiple touchpoints throughout a student's educational journey and build upon existing programming.
17. Offer services across the campus, making mental health a collective responsibility that all student services, not just counselling, play a role in supporting.
18. Work with student groups and student leadership to deploy a strengths-based peer-support network.
19. Teach SBR to student service professionals across campus.
20. Foster collaboration skills among students as an antidote to the competitive nature that characterizes campus life.
21. Collaborate with service learning and co-op preparation course leaders to introduce a strengths-based approach to preparing students for work-term experiences.
22. Use technology to build awareness of programs, services and resources about resilience and well-being on campus.

Ministry of Advanced Education & Skills Development

23. Continue to support evidence-based research into mental health and programming related to post-secondary transition.
24. Create a grant program for educational institutions to enable them to build comprehensive mental health programming.
25. Invest in training post-secondary education student service professionals in program evaluation methods and techniques.
26. Make resilience an explicit learning outcome in post-secondary education.
27. Fund programs that tie mental health interventions with improving students' career and employment outcomes.

FLOURISH

A strengths-based resilience (SBR) approach to support students' transition from secondary to post-secondary education (PSE)

INTRODUCTION

The transition from secondary to post-secondary education (PSE) represents a significant period of growth in a young person's life. It is generally accompanied by substantial physical, psychological, social and environmental changes. These changes can include moving away from family (emotionally and in many cases geographically), figuring out one's identity, reconciling to (or not) new beliefs and values different from one's family of origin, choosing to follow parental expectations for a career or making a personal choice from among many options.

Millennials, generally referred to as the generation born between 1977 and 2000 (Westerman et al., 2012) are characterized as sheltered, confident, team-oriented, achievement-focused, pressured and conventional (Owen & Rodolfa, 2009). Millennials present with multitudes of stressors, especially around their education. They face increased pressure to excel academically. They also face a number of paradoxes – digitally connected yet increasingly isolated, socially engaged yet psychologically stressed, inclusive yet self centred. These stressors and paradoxes are unlikely to be resolved by academic achievement. Nor is inoculation from these challenges possible or desired. To deal adaptively with these challenges, students need resilience.

Like generations before them, Millennials enter PSE with high hopes and aspirations for personal growth and development. This growth, however, is thwarted if young adults face mental health challenges. The stress associated with transition to PSE further complicates their mental health. Moreover, the transition has become increasingly complex over the years for young people to navigate, with rapid changes in technology, geopolitical strife, environmental chaos and ever shrinking resources. Now more than ever, today's students need to be taught skills to handle this transition effectively (Cleary, Walter & Jackson, 2011; Deasy et. al., 2014).

The central focus of our Mental Health Innovation Fund (MHIF) project was to understand and intervene with the transitional challenges faced by students with mental health concerns. It proposed four main goals:

1. **To understand transitional challenges,** particularly those of students with complex mental health concerns;
2. **To design and evaluate the effectiveness** of a strengths-based resilience intervention to address these challenges in three delivery sites - the University of Toronto Scarborough, the Rouge Valley Health System - Shoniker Clinic and the Toronto District School Board;
3. **To engage students** in peer-to-peer learning and support;
4. **To disseminate findings and resources**, in turn enabling schools and university colleagues across the province to benefit from our learning.

This final report is the culmination of 2 years of program development, implementation and research at both the secondary and post-secondary levels of education. It is divided into seven parts:

Part I: Understanding Student Transition. Our report begins with an examination of transitional challenges facing today's students. We also review the results of a comprehensive environmental scan of mental health data from the University of Toronto Scarborough (UTSC) over a 5-year period. We then overview examples of Ontario post-secondary institutions' current approach to the first-year transition challenge and discuss how this approach might not be addressing the increasing incidence of mental health issues on our campuses. We conclude with an introductory overview of our two programs that more directly address mental health.

Part II: The Flourish Program. Part II summarizes findings from the Flourish program at UTSC and associated research. We present salient findings from five cohorts (2012-17) who participated in the Flourish program to highlight mental health indicators related to student transition.

Part III: The Strengths-Based Resilience Program. Part III summarizes findings from Strengths-Based Resilience (SBR) programming and research at UTSC and at two partner institutions. We examine whether resilience can be cultivated systematically through our SBR program. Our results show an increase in resilience, well-being and student engagement, and a decrease in stress and stigma.

Part IV: Conclusions. Our conclusions summarize the findings from our two projects and outline implications for addressing the mental health concerns of students transitioning from secondary to post-secondary.

Part V: Recommendations. We conclude with recommendations directed to four audiences:
a. Secondary and Post-Secondary Administrators
b. Mental Health Service Professionals
c. Student Service Professionals
d. Ministry of Advanced Education & Skills Development

Part VI: References. We include a list of the many references used in this report that have also guided much of our work on flourishing and strengths-based resilience.

Part VII: Appendices. Our appendices contain additional material covering our project goals and results, its structure, stakeholders and collaborators, and our programming activities and resources.

PART I: UNDERSTANDING STUDENT TRANSITION

More Ontarians than ever are participating in post-secondary education. Enrolment has increased by 43 percent since 2003. Today, 9 out of 10 high school students are expected to continue their education (Statistics Canada, 2017). As enrolment rates have increased, the prevalence of psychopathology among post-secondary students has also increased. This is evidenced by large scale cross-sectional post-secondary student population surveys (ACHA 2016). This correlation could be explained either by increased help-seeking behaviours in students or by earlier onset of psychopathology that remains untreated. Irrespective of the cause, transition to post-secondary education (PSE) is a complex phenomenon and this is further complicated by psychopathology. Moreover, increases in the incidence of mental health concerns place increased burden on post-secondary institutions to respond.

Part I addresses three questions to context our Flourish and SBR programs' efforts and outcomes:

1. **What do research studies conclude about the mental health of young people in the transition to higher education?**

2. **What are the student demographic trends related to mental health and the first-year experience at UTSC for which the Flourish and SBR programs were intended to address?**

3. **How do Ontario's higher education institutions generally approach their first-year experience programming?**

The Transition to Higher Education: What does the Research Tell Us?

Secondary and post-secondary educational settings are critical hubs of support where emerging adults configure, coalesce and construct their identities from a myriad of perspectives. Rarely in life will emerging adults experience this heightened encouragement of their intellectual, emotional, social and cultural potential to become autonomous yet civically engaged citizens. Though critical in realizing students' future flourishing, these hubs are witnessing escalating rates and increasing complexities of psychopathology, as demonstrated by the following figures:

- In 2015, one in five students or 21 percent from a sample of 10,426 seventh- to twelfth-graders reported visiting a mental health professional (such as a doctor, mental health nurse, or a counsellor) for a mental health matter at least once during the past year. This percentage is significantly higher than the 12 percent reported in 1999 (Boak et al., 2016).

- The American College Health Assessment (ACHA; 2016), in which almost all major Canadian post-secondary institutions participate, showed that in 2013, 5.4 percent of Canadian students on post-secondary campuses reported being diagnosed or treated by a professional with a psychiatric condition. This percentage increased by 7.4 percent to 12.8 percent in 2016 (*American College Health Assessment*, 2016).

For emerging adults, starting post-secondary education is a significant milestone in their lives and can also be one for their family members. This milestone can be quite stressful for any adolescent, even those without a history of mental health issues. It includes letting go of old high school friendships and forming new ones in a new, more complex environment. For some this includes adjusting to new living arrangements on campus, in a new city or country. For most, it means adopting a more autonomous time-management and academic structure, sometimes combined with finding time for part-time employment. For many, it ushers in an era of exploring tricky knots of identity and considering longer term career choices.

This milestone in contemporary times comes with an extra edge of competitiveness. Students in post-secondary education are well aware of the limited number of spots in co-op, and even fewer in choice graduate programs down the road. Some, especially first-generation students in post-secondary education, are from marginalized socio-economic and immigrant backgrounds and carry parental expectations to excel.

All of the above transition challenges can test the resilience and well-being of a well-adjusted adolescent. For those vulnerable to mental health concerns, the transition can be especially challenging. Any number of factors mentioned above can precipitate symptoms of anxiety, depression, and relationship difficulties. Denovan & Macaskill (2017) found that first year students who experienced more negative emotions were prone to psychopathology. In contrast, those who experienced more positive emotions were less likely to experience psychopathology and also more likely to have more optimistic thinking.

Beginning in 2012, the University of Toronto Scarborough (UTSC) embarked on a project to examine the association between the well-being of our students and their persistence from first year to graduation. We aimed first to understand the unique characteristics of our very diverse student body.

We examine in the following section UTSC student data over a 5-year period (2012-2017). We use primarily findings from an environmental scan of counselling intake data during this period, with some additional stress-related data gleaned from students participating in our Flourish program.

Transitional Challenges: Insights from Environmental Scan

Our environmental scan, for which we obtained ethics approval, is based on archival data of young adults who sought counselling between 2012 and 2017 at UTSC, a culturally diverse, urban campus. Deploying inductive (Miles & Huberman, 1994) and grounded theory approaches (Charmaz, 2015; Strauss & Corbin, 1998), we analyzed clinical descriptions of students seeking counselling. Our research team synthesized presenting concerns described by clients (students seeking psychotherapeutic services) and clinical impressions recorded by clinicians at the time of the intake.

The research team included one licensed clinical psychologist, one graduate student in counselling and two senior (4th year) undergraduate students. Team members individually coded clinical descriptions and met weekly to discuss the development of codes. At weekly meetings, further discussion allowed new codes to emerge from the data, definitions to be revised, and constructs to be clarified. The team incorporated redundant codes into broader categories and divided broader categories into more clinically distinct categories.

Once the team had generated a solid code list and streamlined the process, we conducted the second phase of analysis. In this phase, three coders independently coded each case. Wherever two coders differed, a fourth coder (first author: TR) arbitrated and resolved discrepancies.

Our environmental scan of students accessing counselling services was guided by five key questions outlined in more detail below:

- Who are first-year students accessing counselling services (e.g., gender, age, immigration)?
- Who is referring first-year students to seek counselling services?
- What are the academic characteristics of first-year students?
- What proportion of students seeking counselling are in first year?
- What specific clinical characteristics do first-year students display?

Student Orientation 2016: Physical Resilience

Who are First-Year Students Accessing Counselling Services?

We operationalized transitional status of students through two criteria, both of which needed to be satisfied for students to be considered transitioning:

1. Completion of five or fewer credits (10 half-year courses) at the time of seeking counselling services, referred to as “intake” from here forward
2. Enrolled as a student at the campus for no more than 1 year

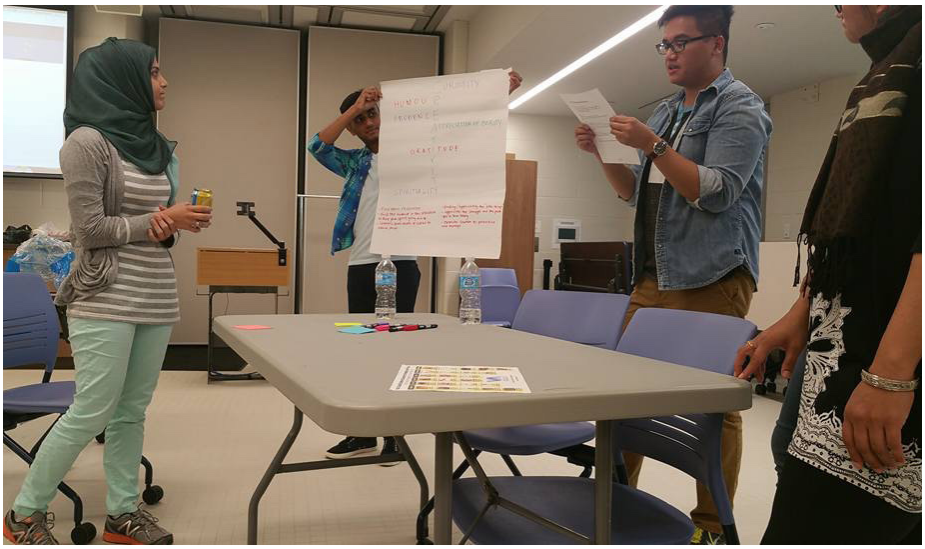
Students who met both of these criteria will be referred to as first-year students. Thus, students who only met one criterion and students who did not meet any are grouped together as non-first-year students.

Our mental health scan included a total of 2,327 students who sought counselling services at the Health & Wellness Centre (HWC), University of Toronto Scarborough (UTSC). However, the number for analysis of students differs due to missing data for some analysis. Approximately 18 percent of students overall were identified as first-year students while 82 percent were identified as non-first year students.

The average age of all students seeking counselling was 22.55 years (*SD* = 2.96), with 68.3 percent of the sample being female. Overall, the female to male ratio was nearly 2:1 and this was true for both first-year and non-first-years students.

Within first-year students, three ethnocultural groups represented almost 75 percent of first-year students: South Asians (33%), East Asians (19%) and Caucasians (22%). These figures did not differ from non-first year ethnicity rates. Aboriginals were the least represented, averaging .3 percent in both first-year and non-first-year students. **Figure 1.1** presents the ethnocultural background of students presenting for counselling services.

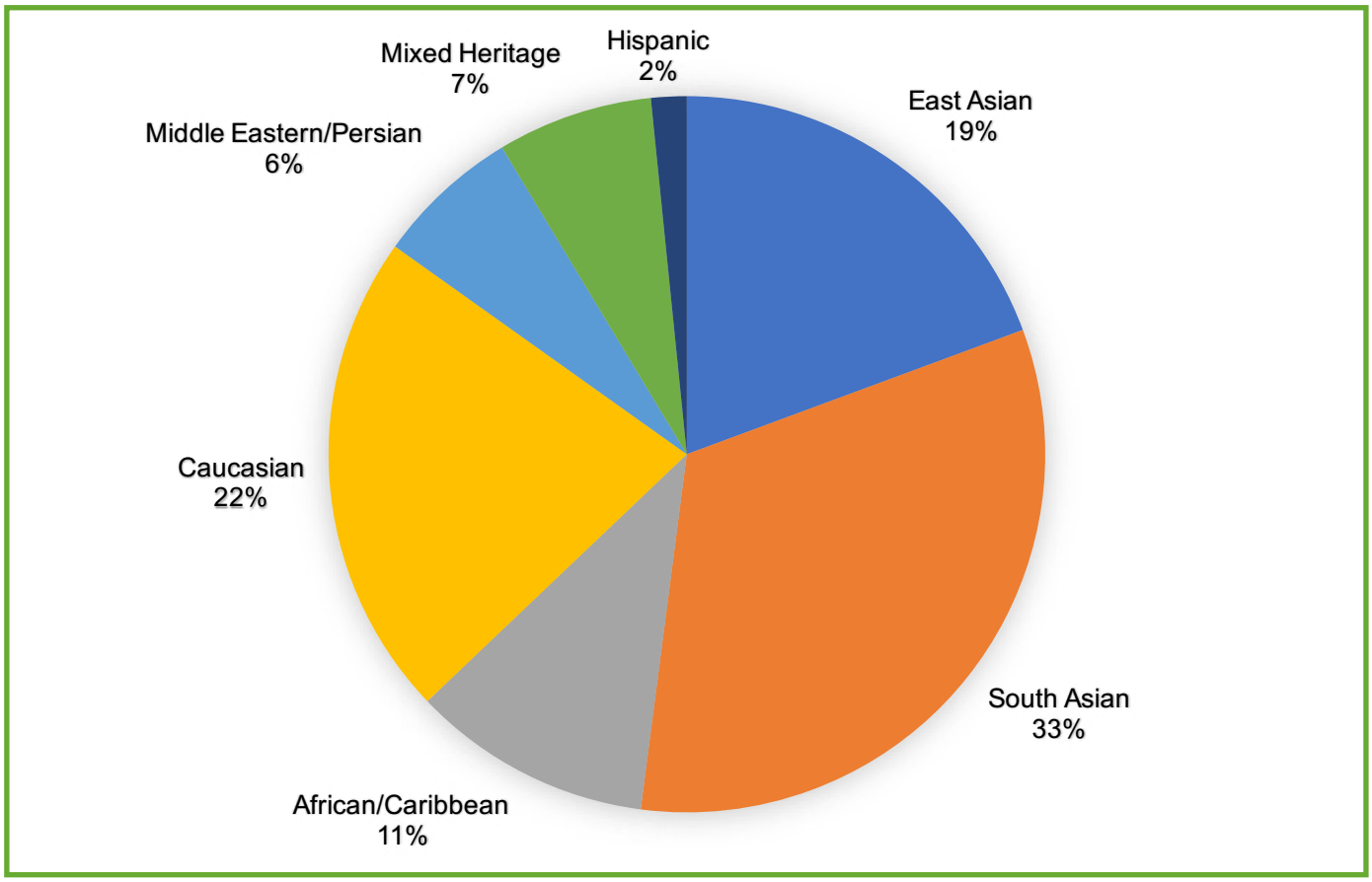
Immigration status, however, did significantly differ between transitional status, with first year students having significantly more international students (12%) than non-first years (7%). Accordingly, there were also significantly more first-year students residing on-campus (20%) than non-first years (4%) in the environmental scan. Finally, first-years worked significantly fewer hours (4 hours) than non-first years (7 hours) per week.



Building Academic Resilience

Figure 1.1

Ethnocultural Background of Students Accessing Counselling Services 2013-17 (n=2,327)



Who is Referring First-Year Students to Seek Counselling Services?

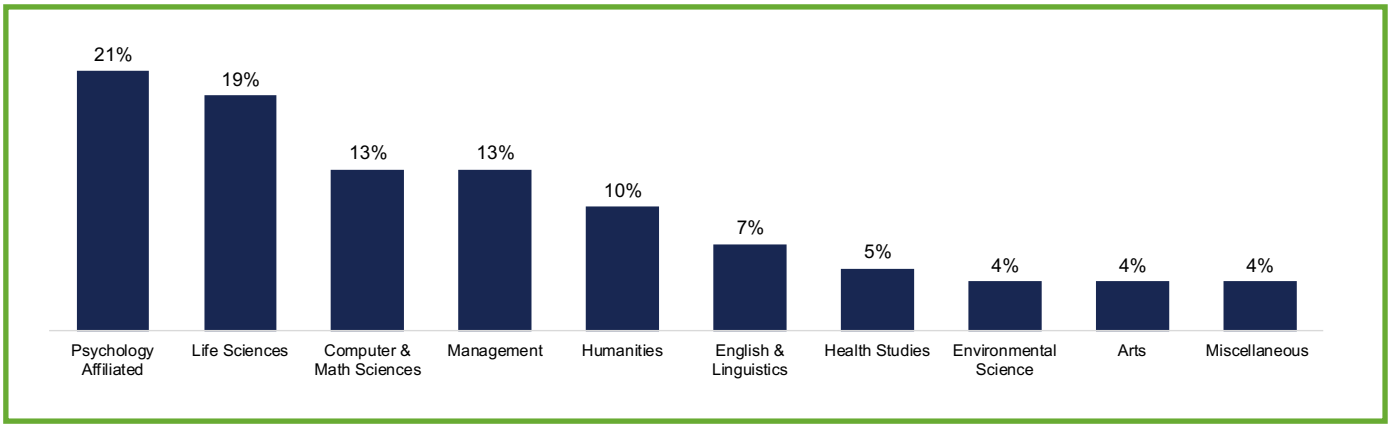
Seventy-six percent of first-year students accessed counselling services through a self-referral. Other referral sources included from friends (6%), student services (4%), professors/advisors (3%) and the campus counselling centre website (3%). On the surface, 76 percent of students seeking counselling services through self-referral appears to be very encouraging and could imply that stigma against mental health is decreasing. However, one should not rule out the possibility that the students were referred by a student service or students were encouraged to seek counselling services due to an outreach presentation before the student actually sought services. Without data available regarding when the student was actually referred, we cannot further analyse referral sources.

What Are the Academic Characteristics of First-Year Students?

First-year students across all academic program areas at UTSC accessed counselling services as set out in **Figure 1.2.** The cumulative Grade Point Average (cGPA) on a 4.0 scale for first-year students of approximately 2.47 (S.E = .06) was not significantly different in the non-first year student sample.

Figure 1.2

All Students Accessing Counselling Services by Program Area 2013-17 (n=2,327)



What Proportion of Students Seeking Counselling are in First Year?

Table 1.1 shows the total number of students admitted between 2012 and 2017. In the 5 years from 2013 to 2017, admission numbers remained relatively constant, with the exception of 2014 which saw a 3 percent increase in new students.

Though overall first-year admissions remained constant over this 5-year period, our data shows an increase in first-year students accessing counselling services. **Figure 1.3** summarizes the distribution of first-year and non-first year students each year. In 2013, first-year students comprised 10 percent of the UTSC student population accessing these services. This percentage climbs to 14 percent in 2014 and then to 21 percent in 2017.

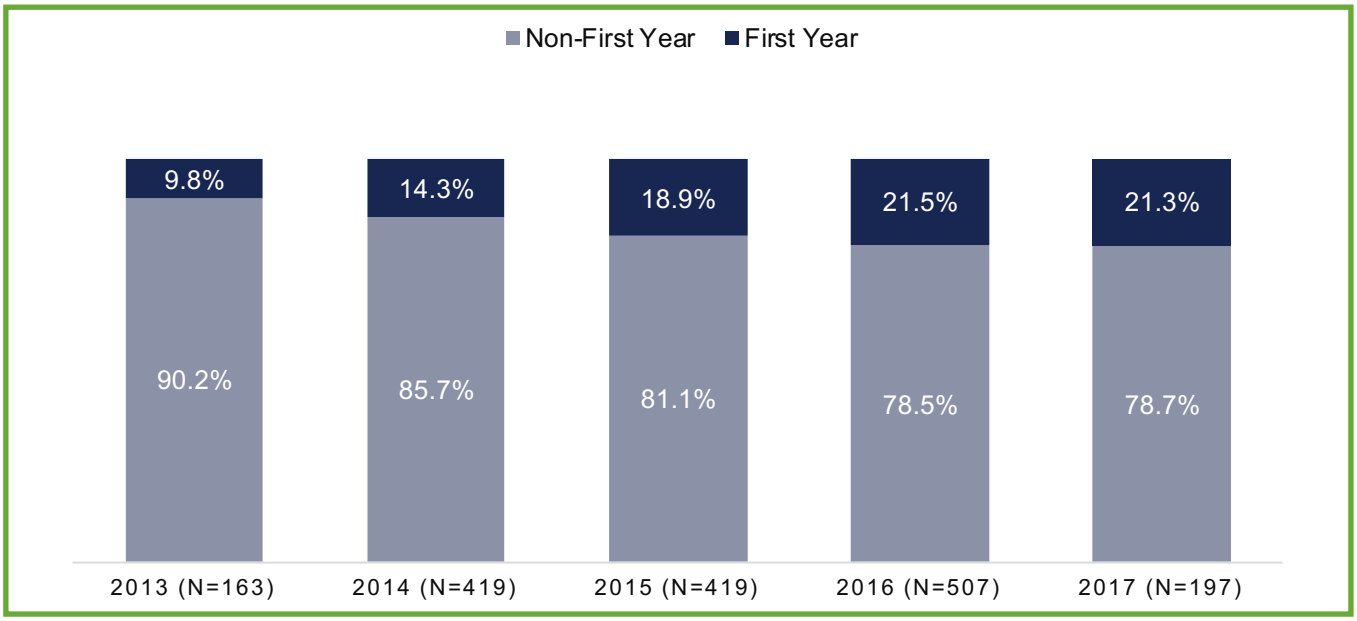
Table 1.1

Percent Change in Students Admitted to UTSC over 5 years 2012-2017

Fall Session	Number of Students	% Change
2012	2767	
2013	2760	-0.25%
2014	2850	3.16%
2015	2864	0.49%
2016	2851	-0.46%
2017	2829	-0.78%

Figure 1.3

Percentage of First-Year Students Accessing Counselling Services 2013-17



What Specific Clinical Features do First-year Students Display?

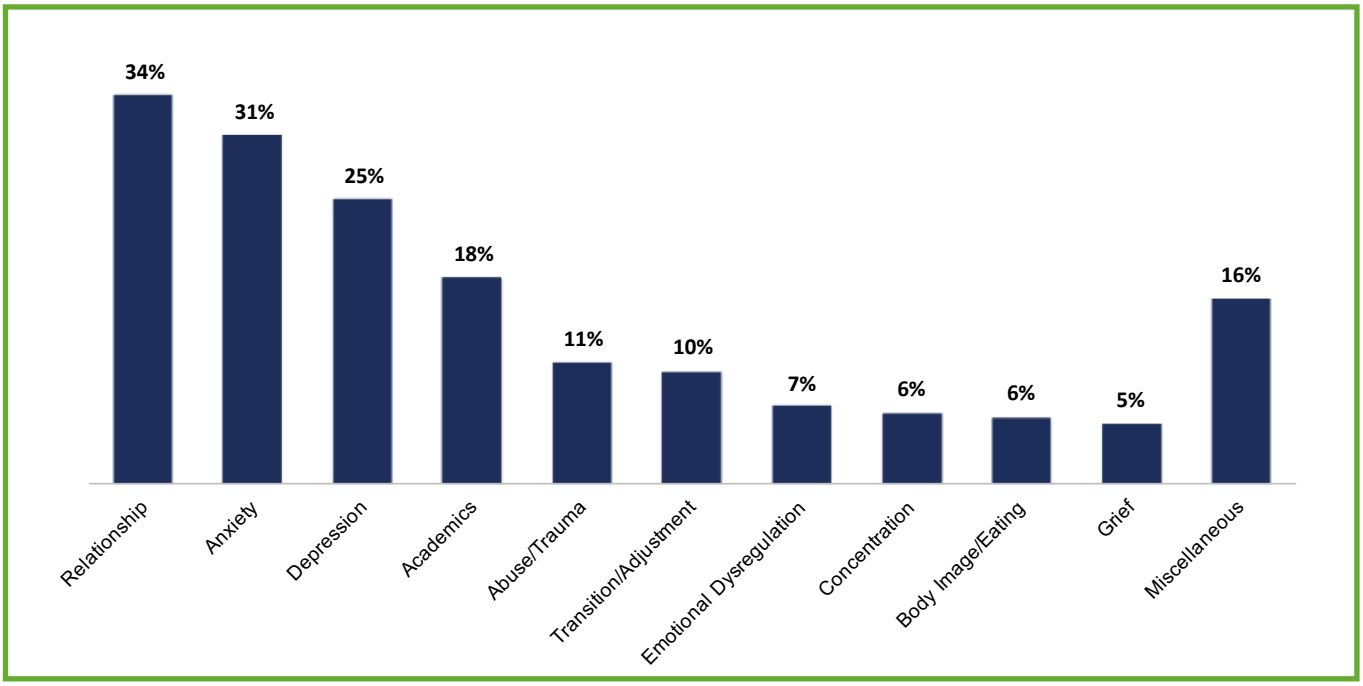
Figure 1.4 summarizes the data on the clinical presenting concerns of first-year and non-first-year students. This information is based on qualitative analysis by independent raters of the clients' and clinician's description of presenting concerns. These codes are not meant to be diagnostic in nature but depict broad-based clinical concerns.

Ten categories in **Figure 1.4** represent 84 percent of the concerns identified, with at least 5 percent or more of students presenting this concern. Ten additional categories of concern were presented by less than 5 percent of students and are grouped within the 16 percent Miscellaneous category. These included self-esteem, suicidal and self-harm behavior, substance abuse, motivation, psychosis and cultural conflicts. Specific percentages of these concerns are noted in the superscript of **Figure 1.4**.

Our results suggested that the top three presenting concerns among students seeking counselling services are relationships (34%), anxiety (31%) and depression (25%). A breakdown of the relationship concerns shows that 23 percent of relational issues were related to family, reflecting the unique cultural background of our sample, while the rest included issues concerned with friends, romantic partners and general relational difficulties. A breakdown of anxiety concerns shows almost one fifth were related to general anxiety (19%), while the rest included social anxiety and anxiety related with obsessive compulsive symptoms. We also found that almost 18 percent of presenting concerns related to academics, including procrastination, learning disabilities and concentration challenges.

Figure 1.4

Presenting Concerns by Students Accessing Counselling Services 2013-17 (n=2327)



Note: Miscellaneous include, Self-esteem 3.5%; suicidal behavior; 2.7%; cultural conflict 2.2%; substance use 2.1%; somatic 1.8%; gender dysphoria 1.2%; motivation/interest 0.9%; anger management 0.7%; Psychosis 0.6%; Self-harm 0.6%

The transition or adjustment concerns – which are defined by a significant move from one phase of a student's life into another or by a lack of adjustment following a major event – constituted 10 percent of first-year students and 8 percent of non-first-year students. Examples of transition or adjustment concerns include letting go of old friends, making new ones, adjusting to new routines or living arrangements, becoming autonomous in managing time and selecting courses. Presenting concern rates did not significantly differ from first-years to non-first-years.

Our findings regarding presenting concerns are similar to results of the Association for University and College Counselling Centre Directors (AUCCCD) Annual Survey (Reetz. et al. 2017), completed by 529 directors who reported on the top presenting concerns at their respective counselling centres. Results of the survey found that anxiety (50.6%) was the most significant presenting concern, as reported by Directors of counselling centres, followed by depression (41.2%) and relationship difficulties (34.4%).

Nearly two-thirds of students included in this scan live with their family of origin, representing both an opportunity and a source of stress. Staying connected with family and friends can provide support and security which students need in order to solidify their identity across the transition. As mentioned, however, relationship difficulties were among the primary presenting concerns reported by students. When parsed into various components of relationships, troubled relationships with family constituted 23 percent of all concerns. That is, nearly one in four students in our sample experiences psychological distress due to family-related issues. Research involving a diverse student sample (Tseng, 2004) has suggested that students from immigrant families experience stress as they have to fulfil family responsibilities due to family financial struggles. Moreover, students have to do a number of household chores, including caretaking of their siblings, translating for their parents, and sharing financial responsibilities. It appears that students often feel obligated to fulfil these roles.

Students also completed a self-report measure (OQ-45) on a tablet, before starting the intake with the clinician. Almost one-tenth (9.8 percent) of first-year students reported experiencing suicidal ideation. The measure assesses suicidal ideation through an item, "*I have thoughts of ending my life*". Students respond to the question on a 5-point Likert Scale. Overall, 8.5 percent of students endorsed this item selecting anchors "frequently" and "almost always". This rate is consistent with suicidal ideation reported on large scale Canadian surveys such as the National College Health Association survey, completed by more than 43,000 Canadian undergraduates (NCHA, 2016).

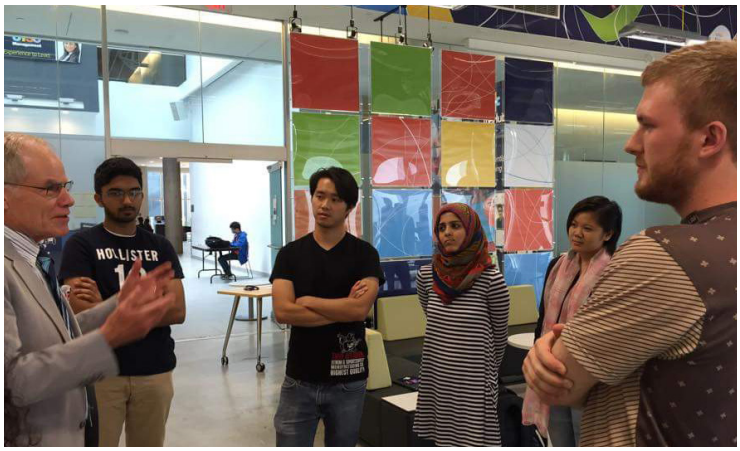
Current Transition Program Approaches in Post-Secondary Education

An extensive body of research indicates that student success is strongly related to their experience during the first year of post-secondary education (Cole, 2017; Komarraju, Ramsey & Rinella, 2013) and that shaping the contours of this experience will likely promote successful transition. Therefore, students' first-year transition experience should be and generally is a high priority of administrators, faculty and staff in the higher education system.

Many if not most post-secondary institutions take this transition seriously. However, much of the prevailing educational ethos is heavily directed towards academic performance or remediation of challenges associated with academic performance. Few programs emphasize personal development.

Of numerous attributes that contribute to personal development, two stood out in a systematic review of the relevant literature: strengths and resilience (Brownlee et al., 2013). A 2016 literature review from a report on resilience from the Higher Education Quality Council of Ontario (HEQCO; Patry & Ford, 2016) concluded that resilience is a multidimensional construct that could be studied as a predictor, a protective factor, a process or an outcome. It further conceptualized resilience as a higher-order transferable skill that could be incorporated as a learning outcome in post-secondary education. In our project, we used resilience broadly as a skill that could be developed and serve as a protective factor in dealing with stress.

A scan of 15 transitional programs and resources at leading post-secondary institutions in Ontario (**1.2**) suggests that transition is heavily conceptualized as successful adjustment to the demands of the new academic milieu. The programs illustrated in **Table 1.2** almost exclusively use "academic" in their descriptors of respective programs, as listed on their corresponding websites. A closer examination reveals occasional attention to students' social adjustment, but a relatively small emphasis if at all. None of these programs mention well-being or resilience.



Flourish Ambassadors with Principal Bruce Kidd

Spotting Strengths of Others

Table 1.2

Examples of Student Transition Support Programs & Resources at Universities in Ontario

	Institution	Program Name	Program Description
1	Algoma University	Start Program	3-day program to ease transition, especially for students with learning disabilities
2	Brock University	SMART Start	Summer academic orientation program, series of seminars outlining ways to succeed in PSE
3	Guelph University	Bounce Back Back on Track	Program focused on enhancing academic skills, time management, balancing life and academics, procrastination and perfectionism
4	Guelph-Humber	Kickstart	Summer event to prepare students for academic enhancement
5	Lakehead University	Gateway	Probationary program for students who show potential but might not be meeting minimum academic requirements
6	Nipissing University	Academic Success Program	Structured program focused on retention and persistence; students attend success workshops which culminate in a capstone project
7	Ontario College of Art & Design (OCAD)	COMPASS	2-day orientation for First-Generation students focusing on time management skills, meeting upper year students and getting oriented to student services
8	Queens University	First Year Bounce Back	A support program offered in Fall and Winter terms for first-year students who may be struggling academically
9	Trent University	Bring it on	Weekend orientation in small groups with other first-year students to learn strategies for academic and social success
10	University of Ontario Institute of Technology (UOIT)	iBegin	Program designed to promote academic and personal success by encouraging first-year students to meet fellow students, faculty and staff
11	University of Toronto	Kickstart	General orientation focused on academic transition
12	University of Toronto Scarborough	Get Started	A summer full-day interactive program to orient students and parents to program planning and course selection, as well as importance of campus engagement and experience
13	Western University	Ready for University	Program designed to help students with study skills, as well as development; matches first-year students with an upper-year student to be their peer guide
14	Wilfrid Laurier University	Headstart	Half-day program designed to ease the transition by offering students a glimpse into their academic program, expectations, difference between high school and university
15	York University	YU Start	Designed to support students in enrolling in courses, connecting them with their classmates, student leaders, faculty and student services staff

Research indicates that the first year tends to be the most stressful year for many undergraduate students (Sladek et al., 2016; Maze & Verlhiac, 2013). As mentioned earlier, historically North American colleges and universities have supported students' transition through remedial programs to enhance their academic skills required for success such as research, writing and math. This approach is based

on an assumption that entering students must possess specific cognitive abilities and academic skills to succeed. Those who don't have these abilities and skills either do not enter post-secondary or if they enter, their transition entails spending substantial effort and time in order to acquire them. While post-secondary has done well in imparting academic remediation skills, less intentional focus is placed on cultivating skills of resilience and stress management.

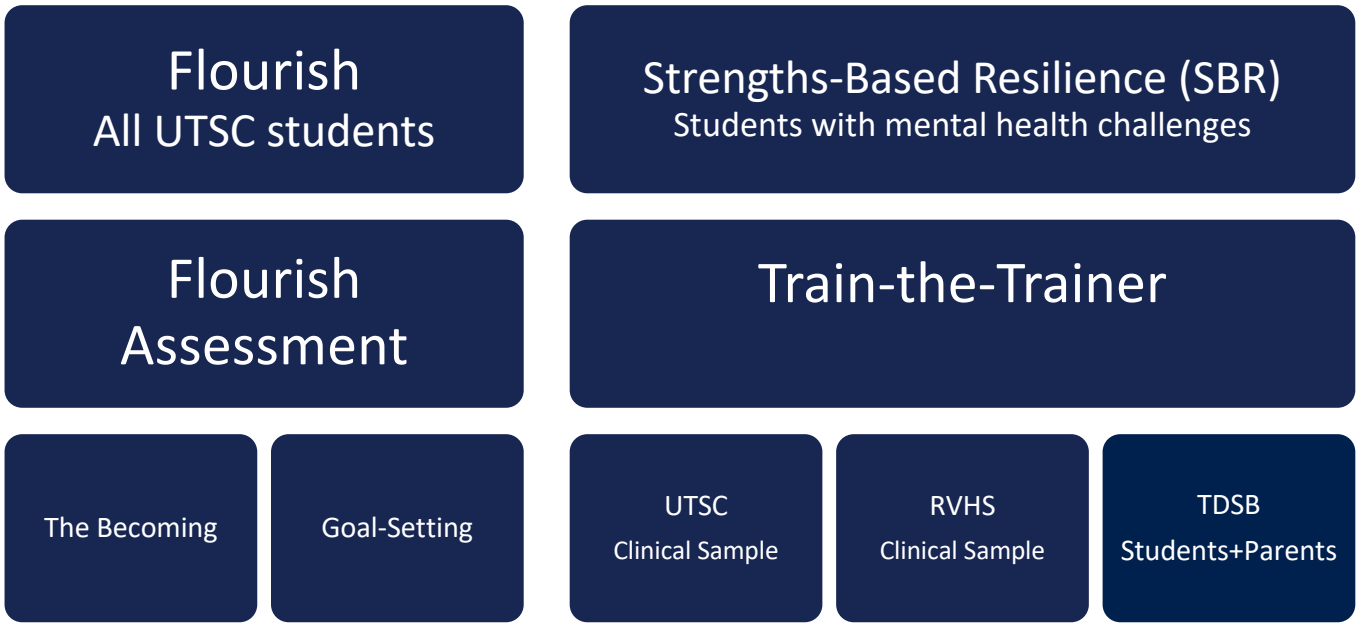
When translated into concrete terms, this approach narrows the focus of eligibility and assessment to tangible measures such as entrance scores and grades. Indeed, tangible measures makes sense to the layperson. Existing research does show that previous academic performance tends to be the most significant predictor of performance in post-secondary settings (Westrick et al., 2015).

However, increasingly, studies are assessing the impact of non-cognitive factors such as psycho-social integration into university and self-efficacy (Feldman & Kubota, 2015; Komarraju & Nadler, 2013; McKenzie & Schweitzer, 2001). A focus on scores and grades overshadows other important learning processes, such as students' engagement in co- and extra-curricular activities and career development experiences, as well as associated and desirable learning outcomes in terms of well-being, social integration and confidence in the future.

This emphasis on grades and entrance scores generally means that students' strengths, skills, talents and abilities are neither assessed nor enhanced systematically as a means to promote their success.

In contrast to academic remediation, our MHIF-funded project aimed to focus transition support on well-being and resilience. It comprised two distinct programs detailed in the following two sections: Flourish and Strengths-Based Resilience (SBR). **Figure 1.5** illustrates these two programs with their sub-components.

Figure 1.5



PART II: THE FLOURISH PROGRAM

Expanding the horizons of student transition and success, Flourish aims to assess and enhance systemically character strengths of students so that they can grow intellectually, socially, and emotionally and are able to translate this growth into actions, habits and purpose - be they academic, career or broader life goals.

Flourish goals & background

The goal of the Flourish program, within the context of the Mental Health Innovation Fund (MHIF), is to understand the transition challenges of first-year undergraduate students and how they can use their strengths to handle challenges adaptively. Over the 2-year grant program, we spread the message of the Flourish program to students through a wide variety of campus and community outreach events as summarized in Appendix D. However, our emphasis in this section is on explaining the underlying assessment model, describing the educational programming features and sharing research findings.

Our program, Flourish, is based on Corey Keyes model (see Page 5) which posits that the absence of symptoms of mental illness does not necessarily mean the presence of positive mental health. Keyes terms the presence of mental health as flourishing, and the absence of mental health as languishing. Keyes has examined the flourishing and languishing of more than 1,200 nationally representative adolescents between the ages of 12 and 18. He found that approximately 38 percent of adolescents were flourishing, 56 percent were moderately mentally healthy, and 6 percent were languishing (Keyes et al., 2011).

Flourishing university students have healthy mental functions, fulfilling relationships, engaging meaningful and productive activities, and resilience, that is, they bounce back from setbacks quickly (Keyes, 2007; Schreiner, 2015). Although not clinically depressed, the languishing students do not often experience positive emotions, feel academically and socially disengaged and lack a sense of meaning or purpose in their lives. Languishing students are neither mentally ill nor mentally well adjusted. They describe their lives as hollow or empty (Howell, 2009; Ouweneel, Le Blanc, & Schaufeli, 2011).

Flourishing and languishing are states, amenable to environmental dynamics. Furthermore, not everyone neatly fits in flourishing or languishing categories. Those who neither flourish nor languish, tend to function in what Keyes terms as moderately mentally healthy category (Keyes et al., 2011).

Operationalizing the Keyes model, the Flourish program is a collaborative initiative at the University of Toronto Scarborough (UTSC), sponsored by the Offices of the Academic and Student Deans and involving the Academic Advising & Career Centre, Access*Ability* Services, Athletics & Recreation, Health & Wellness Centre, and the Office of the Registrar. Started in 2012, the aim of the program has been to support first-year students, especially those who may find transition from secondary to post-secondary educational settings challenging due to mental-health concerns.

The Flourish program begins with a baseline assessment. All first-year students entering UTSC are invited to complete a comprehensive online assessment, which includes measures of Well-Being (FI), Stress (OQ-45), Signature Strengths (SSQ) and academic engagement (SEI). The assessment gives equal importance to stressors and strengths, however, Flourish programming focuses explicitly on enhancing strengths as a means of managing stressors.

Immediately upon completion of the assessment, students receive a detailed feedback report which provides them with personal insights about their strengths and stressors. With the help of MHIF funding, we have expanded this feedback significantly. Now, students receive evidence-based and personalized strategies to build their character and academic strengths, while our interactive website refers students to relevant campus support services and programs. The Flourish team, in partnership with UTSC's Instructional & Information Technology Services (IITS), has developed a modified version of this assessment that is available to the general public, including other Ontario post-secondary institutions as a legacy of our MHIF funding (http://www.utsc.utoronto.ca/projects/flourish/assessment/).

The MHIF grant enabled us to explore systematically the transition trajectory of five cohorts of first year students (n=2,943; 2012-2017) who participated in the Flourish program by completing our aforementioned online assessment, usually during the first month of their arrival on the campus. With Research Ethics Board (REB) approval, we have been able to analyze the data to draw some important insights about the transitional challenges of our first-year students.

For our initial assessment, we use a measure of stress (Outcome Questionnaire OQ-45; Lambert et al., 1996) and well-being (Flourishing Inventory; Rashid, 2012) to assess the complete mental health of students. Consistent with Corey Keyes' model, students' scores from these two assessments can fit into one of three categories of mental health functioning – flourishing, languishing and moderately mentally healthy:

- If a student scores in the normal range on the stress measure, (OQ-45; <63) and above the mean score on the well-being measure (Flourishing Inventory; >96), then they are considered to be in the flourishing range (high well-being, low stress).

- If a student scores in the clinical range on the stress measure (OQ-45; >64) and below the mean score on the well-being measure (Flourishing Inventory; <96), they are considered to be in the languishing range (low well-being, high stress).

- Students not belonging to either of these categories are considered to be moderately mentally healthy (high well-being, high stress or low well-being, low stress).

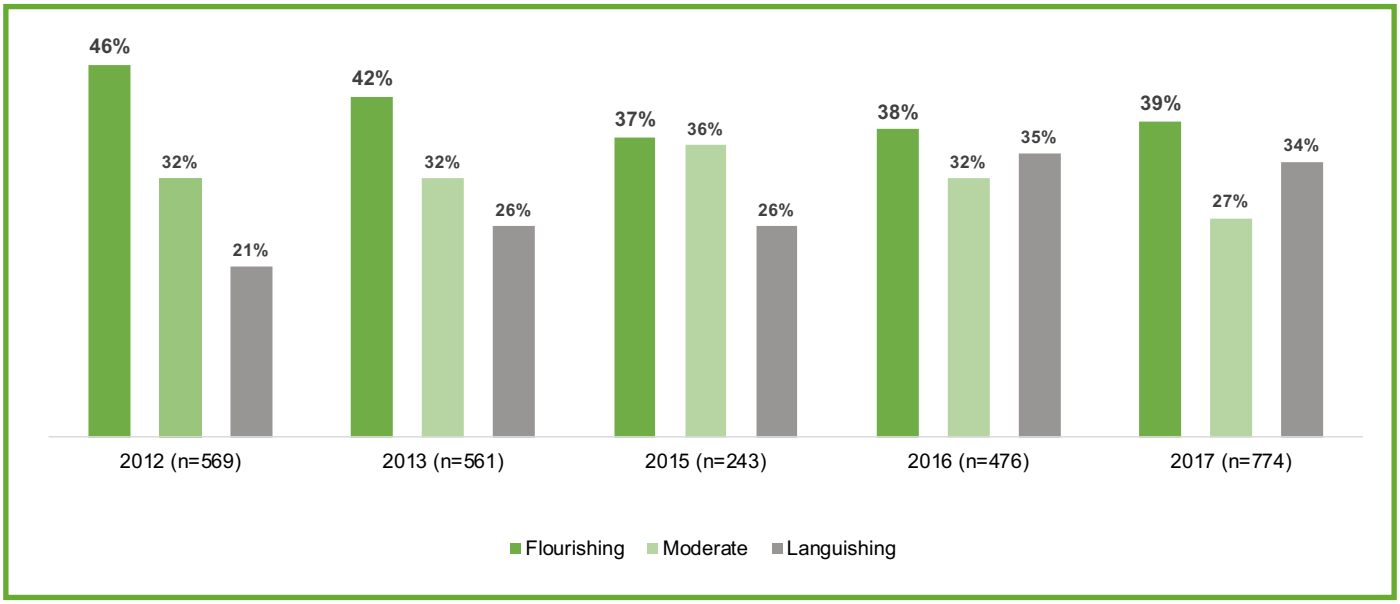
How many students are flourishing & languishing?

The results in **Figure 2.1** are based on a sample of 2,943 students who completed the Flourish Assessment between 2012 and 2017 as a first-year student during September — weeks after they started their post-secondary education at UTSC. Students' mean age, at the time of this report was 22.55 years (*SD*=2.96). Females represented 68 percent. Canadian citizens or permanent residents represented 77 percent of the sample. International students comprised approximately 23 percent. No significant differences were found between international and domestic students when analyzed separately. Therefore, the results presented here are aggregated.

Our results show an increase in rates of languishing (low well-being, high stress) among students entering post-secondary settings, from 21 percent in 2012 to 34 percent in 2016, with a corresponding decrease in the rate of flourishing (high well-being, low stress). This trend is consistent with results of large scale national surveys. For example, results of a large-scale national survey show an increase in diagnosed depression from 17 percent in 2013 to 21 percent in 2016 (ACHA, 2016).

Figure 2.1.

Percentage of UTSC students flourishing and languishing who are transitioning from secondary to post-secondary educational settings (n=2,943)



Stories Worth Sharing Team

Using Strengths

What is the relationship between flourishing/languishing & service utilization?

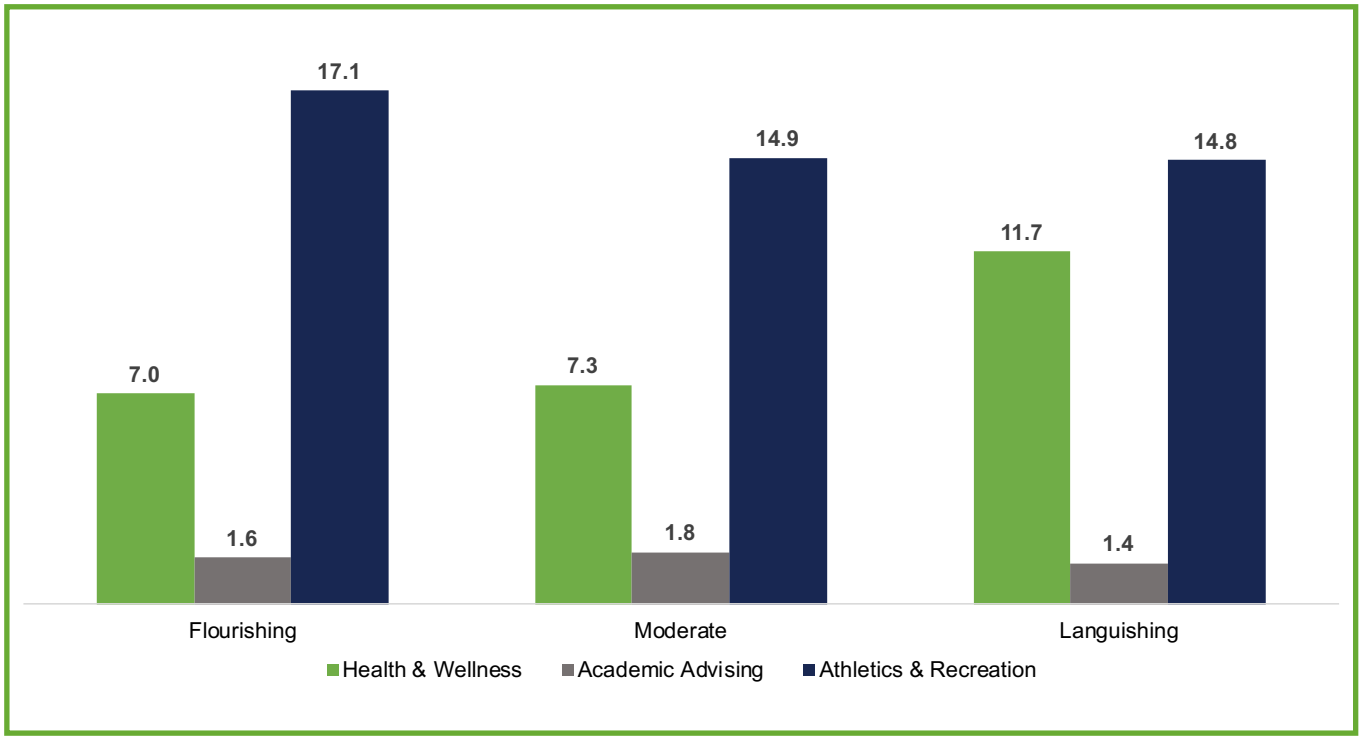
Figure 2.2 presents the average number of visits of students to three student services:

1. Health & Wellness Centre
2. Academic Advising & Career Centre
3. Athletics & Recreation

Our results show that students who entered UTSC in a state of flourishing, had significantly fewer visits to the Health & Wellness Centre (M= 7.02; *SD*=9.18) compared to their languishing counterparts (M=11.73; *SD*=14.8). Similarly, flourishing students, on average, had more visits to the Athletics & Recreation facilities than students in the moderate and languishing groups.

Figure 2.2

Average Number of Visits to Student Services (Counselling, Academic Advising and Athletics) by their Flourishing, Languishing and Moderate Functioning States



What are the relationships between flourishing/languishing, grades & graduation?

We compared the cumulative grade point average (cGPA) of students in flourishing (n= 923; 2.78), languishing (n=701; 2.74) and moderate (n=841; 2.80) states and found no significant differences. We then compared the graduation rate of students who completed the Flourish assessment between 2012-16. From our overall sample of 2501, 529 students had graduated by June 2017. Nearly 80% of these came from the 2012 and 2013 entering cohorts.

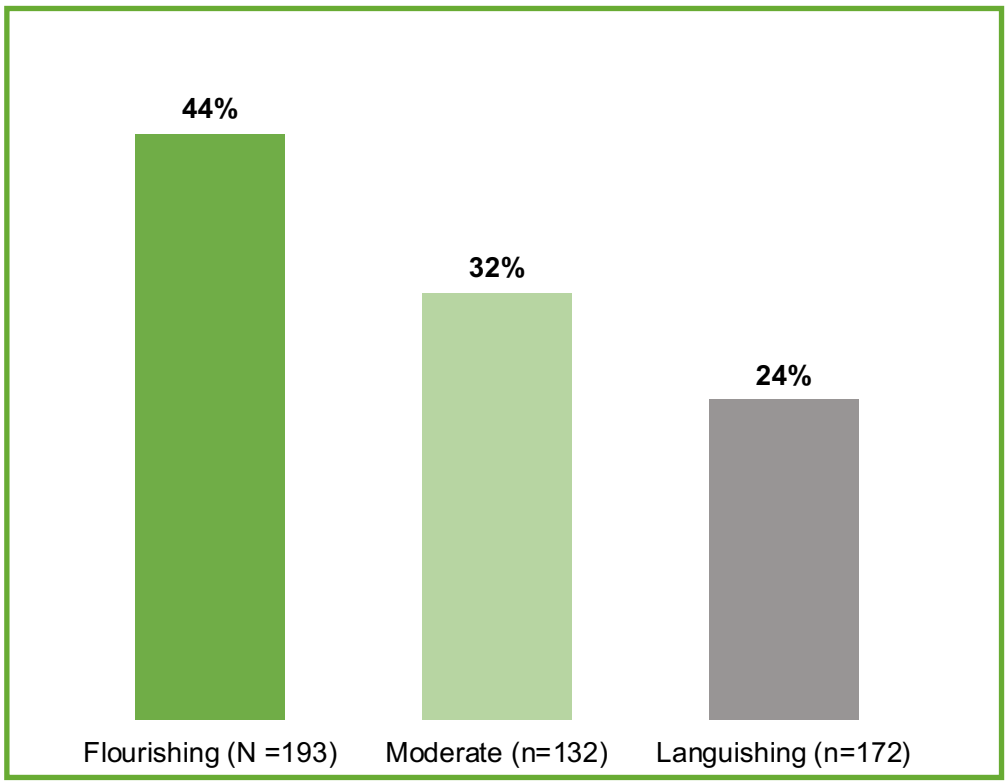
From the 2012 and 2013 cohorts who participated in the Flourish assessment, a total of 503 students had graduated by June 2017. Among those graduates, 53 percent (n=304) belonged to the 2012 cohort and 21 percent (n=119) belonged to 2013 cohort. This difference was expected as more students for the earlier cohort (2012) are likely to graduate earlier.

We explored whether the entering psychological states (flourishing vs languishing) had any impact on the proportion of those graduating. We found that 46 percent of students who entered university in a flourishing state (high well-being, low stress) graduated within four or five years, whereas only 22 percent graduated if they entered university in a languishing state (high stress, low well-being). Meanwhile, 34 percent of those in a moderate state (e.g., high well-being, high stress OR low well-being, high stress) graduated during this period.

Figure 2.3 presents the percentage of these students, by their flourishing, languishing or moderate state, based on the first assessment completed in either September 2012 or September 2013. The graduation rate differences are statistically significant *($\chi 2$ = 11.49 df=2)*. These findings indicate that the psychological state at the time of entrance to post-secondary education has important implications.

Figure 2.3

Graduation Rate among Flourishing and Languishing Students (n=503)



What is the relationship between strengths & stressors?

One of our measures assesses a student's character strengths based on the Values in Action (VIA) model of 24 core strengths (Peterson & Seligman, 2004). **Table 2.1** shows first-year UTSC students' 24 strengths rank ordered (n= 2501) from 2012-2016. Research on character strengths has shown that the five bolded strengths in **Table 2.1** are highly correlated with life satisfaction (Park, Peterson & Seligman, 2004; Korotkov & Godbout, 2014): 1) Gratitude; 2) Capacity to love and be loved; 3) Hope and optimism; 4) Curiosity and openness and 5) Zest.

Social Media Campaign Message

The top strengths of UTSC students who completed the Strengths assessment are: 1) Gratitude; 2) Kindness; 3) Appreciation of beauty and excellence; 4) Capacity to love and be loved; 5) Hope and optimism; 6) Love of learning; 7) Humour.

We also tabulated strengths by flourishing and languishing status. Students who fell in the Flourishing category included among their top 11 strengths four of the five high life-satisfaction strengths: Gratitude, Love, Hope, and Curiosity. Conversely, students in both languishing and moderate categories had only one of the strengths correlated with high-life satisfaction among their top 11 strengths: curiosity and openness to experience.

The stress of students is measured by the Outcome Questionnaire (OQ-45; Lambert et al., 1996). The OQ-45 is a 45-item self-report measure which assesses stressors in three broad categories: 1) symptomatic distress; 2) interpersonal relations; and 3) social roles. Some of the examples of stresses assessed by the OQ-45 include feeling nervous, overwhelmed, weak, sad, struggling with study/work balance, sleep difficulties, feeling claustrophobic and being hopeless about one's future.

Table 2.2 presents the mean scores of the top 24 stressors reported by UTSC students as captured by individual items on the OQ-45. Each item is scored on a five-point Likert Scale with 4=almost always and 0=never. The data is from students who participated in the Flourish assessment over the 5-year period (2012-17), irrespective of their flourishing or languishing status. The results suggest three themes:

- **Anxiety related.** Feeling stressed, panicked, irritated, fatigued due to too much work or studying and experiencing intrusive thoughts, concentration and sleeping difficulties
- **Depression related.** Feeling worthless, lonely, sad, hopeless, lacking motivation, feeling weak, and self-blaming
- **Relationship related**. Having arguments with others, unsatisfying love relationships, family troubles

These three themes are congruent with three themes identified by our qualitative analysis and also identified by the AUCCCD survey mentioned earlier (Reetz et al., 2017).

Table 2.1

Mean Score on Character Strengths of First-Year Students - Rank Order (N=2501)

	Character Strength	Mean
1	**Gratitude**	13.5
2	Kindness & Generosity	13.3
3	Appreciation of Beauty & Excellence	13.3
4	Fairness Equity & Justice	13.2
5	**Capacity to Love & to be Loved**	13.0
6	**Hope, Optimism & Future-Mindedness**	12.9
7	Love of Learning	12.8
8	Humor & Playfulness	12.7
9	Bravery & Valor	12.6
10	Creativity Originality	12.6
11	**Curiosity & Openness to Experience**	12.6
12	Honesty, Integrity & Authenticity	12.4
13	Leadership	12.2
14	Citizenship, Teamwork & Loyalty	12.1
15	Open-Mindedness & Judgment & Critical Thinking	11.8
16	Prudence, Caution & Discretion	11.8
17	Forgiveness & Mercy	11.7
18	Modesty & Humility	11.7
19	**Zest, Enthusiasm & Vitality**	11.5
20	Perspective & Wisdom	11.4
21	Persistence, Industry, Diligence & Perseverance	11.3
22	Social Emotional Intelligence	11.3
23	Self-Regulation & Self-Control	10.8
24	Spirituality, Sense of Purpose & Faith	8.8

Bolded Strengths show the highest correlation with life satisfaction (Park, Peterson & Seligman, 2004; Korotkov & Godbout, 2014).

Table 2.2

Top Stressors Reported by Students Participating in Flourish 2013-17 (N=1571)

	Character Strength	Mean
1	Feeling stressed at school	3.1
2	Blaming self for things	2.9
3	Experiencing concentration difficulties	2.9
4	Having disagreements with others	2.8
5	Feeling panicked	2.7
6	Tiring quickly	2.6
7	Feeling lonely	2.5
8	Having unsatisfying love relationships	2.5
9	Feeling irritation	2.4
10	Having sleeping difficulties	2.4
11	Feeling sad	2.4
12	Feeling hopeless	2.4
13	Having unsatisfying social relationships	2.4
14	Concerned about family troubles	2.4
15	Feeling weak	2.3
16	Not doing well at school	2.3
17	Having drinking issues	2.2
18	Feeling tired	2.2
19	Feeling afraid	2.1
20	Lacking interest in things	2.1
21	Feeling worthless	2.1
22	Being unsatisfied from studies/work	2.0
23	Experiencing intrusive thoughts	2.0
24	Having to study or work too much	1.9

Tabulated from mean scores on each of the 45 items of the OQ-45

What Predicts cGPA 4 Years After Students Complete the Flourish Assessment?

We also explored what predicts cumulative Grade Point Average (cGPA). A large data set (n=2501) and multiple variables allowed us to conduct a multiple regression analysis to evaluate how well various components of the Flourish Assessment predicted CGPA. From six sets of predictors (see below) we explored which set best predicted outcome that is, cGPA.

Six Sets of Predictors

a. High School average
b. Academic Engagement Measures: Classroom behavior, exams and presentations, motivation, campus engagement, academic resilience, and campus adjustment
c. Stressors: symptomatic distress, interpersonal relations, and social roles
d. Well-being: positive emotions, engagement, positive relationships, meaning, and accomplishment
e 24 character strengths as listed in **Table 2.1**.
f. Student services usage data: health visits, visits to gym and academic advising

We found that a combination of the above-mentioned predictors is significantly related with the outcome, that is cGPA; F (43, 2457) = 10.63, $p < .01$. From these predictors, the high school average continues to be the most potent predictor of cGPA. However, we found that character strengths of persistence, zest and perspective, the well-being trait of sense of purpose and meaning, and academic engagement measures of campus engagement, campus adjustment, classroom behavior and academic resilience also predicted cGPA.

Strengths through Art

Can Flourishing be Enhanced Systemically?

As noted above, students who enter post-secondary in a flourishing state fair well in multiple ways, compared to their languishing counterparts. This raises an important question: can flourishing be enhanced systematically? Our program experience and research findings suggest that it can, as we describe in the following paragraphs.

Students begin their involvement in the Flourish program by completing the Flourish Assessment and then are subsequently invited to complete the assessment once every term. The Flourish Assessment has four parts: 1) Stress (OQ-45; 2) Well-Being (Flourishing Inventory) 3) Character strengths (Signature Strengths Questionnaire (SSQ-72) and 4) Student Engagement (Student Engagement Inventory). For more details on these measures, see **Table 3.1**.

After completing our assessment, the program invites students to a one-day experiential workshop, *The Becoming*, that aims to help them develop skills to build their emotional, physical, and academic resilience. Students identify their strengths, apply them in case studies to overcome academic and career challenges, and set a personal goal which uses their strengths to enhance their well-being and resilience. Attendees are invited to a follow-up session 6 weeks later, in which they share their progress on their personal goals with their peers and collectively learn as a group. In addition, we send all attendees emails three times annually at the start of every academic session asking them to re-take the Flourish assessment to track their own progress.

To date, five of these workshops have been organized, attended by 101 students. **Table 2.3** summarizes five experiential activities of the workshop focused on enhancing five aspects of resilience: emotional, physical and academic as well as reinforcing resilience through goal-setting and sustaining resilience through habit-building.

Table 2.3

***The Becoming*: Full-Day Workshop Activities**

Activities	Description	Target Resilience
Explore Your Strengths	Participants explore their strengths from affective and cognitive (images & words)	Emotional Resilience
Spot Your Strengths	Participants complete a team-based physical challenge and spot strengths in each other	Physical Resilience
Apply Your Strengths	Participants apply strengths in solving complex academic situations	Academic Resilience
Build Your Strengths	Participants visualize “A Better Version of Me.” and write a concrete plan to pursue a goal, using their strengths for the next 6 weeks.	Reinforcing Resilience
Action to Habit	Participants return after 6 weeks for a 2-hour session to discuss their progress	Sustaining Resilience

The first three workshops assessed participants’ level of knowledge before and immediately after the activity. **Table 2.4** presents pre- and post-activity mean scores for 55 students who completed the feedback survey. **Figure 2.4** charts the qualitative feedback pre- and post- for each activity.

Table 2.4

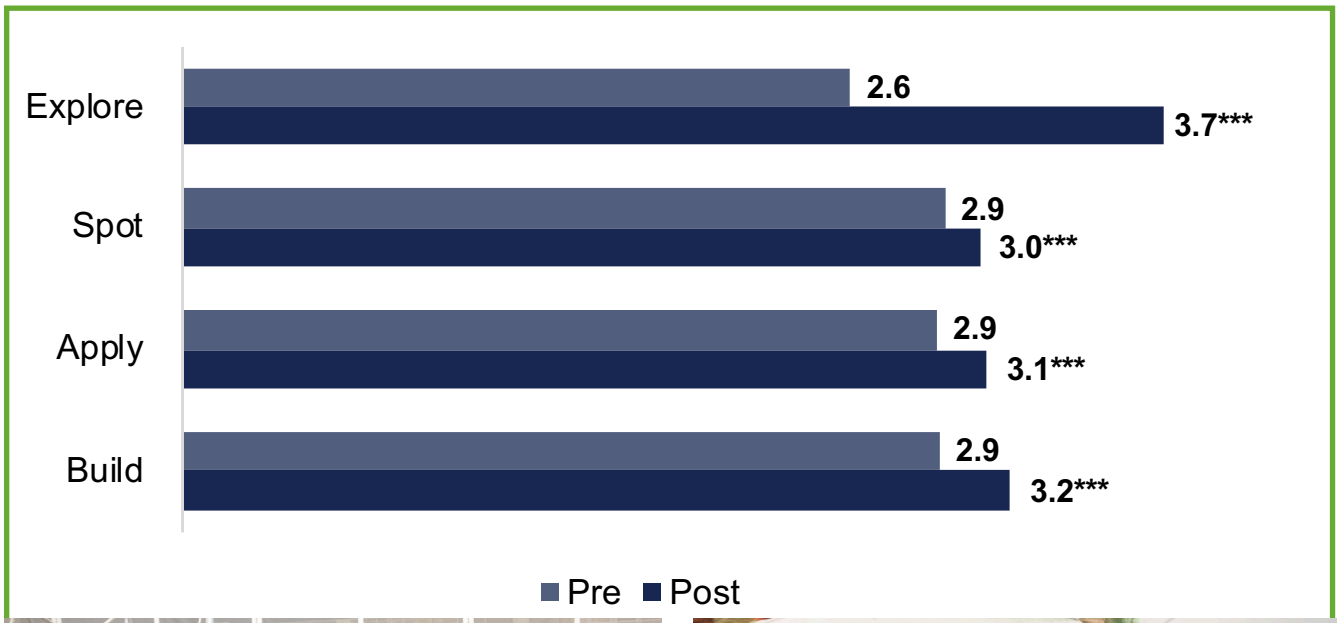
Pre- to Post-Activity Change in Level of Knowledge about Strengths

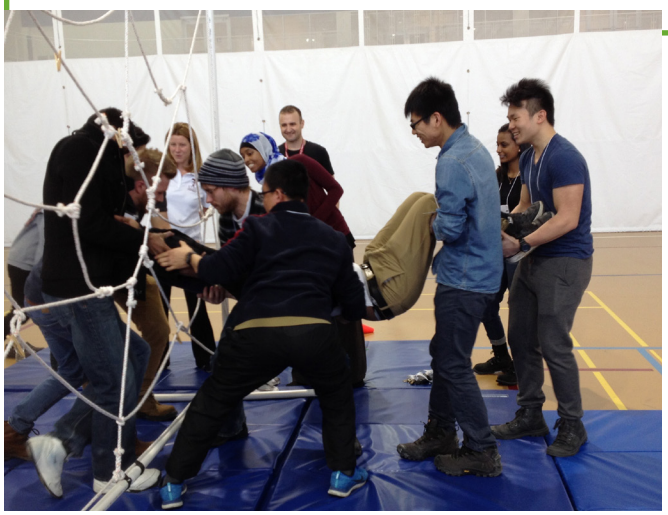
	Pre		Post		
	Mean	*SE*	Mean	*SE*	*t* (*df*, 55)
Explore your Strengths	2.6	0.86	3.7	0.1	12.71***
Spot your Strengths	2.9	0.91	3.0	0.1	14.18***
Apply your Strengths	2.9	0.9	3.1	0.1	13.79***
Build your Strengths	2.9	0.81	3.2	0.1	16.52***

*Note. SD=Standard Deviation; SE.= Standard Error; * represents statistically significant differences at *p<05; **p<.01; ***p<.0001*

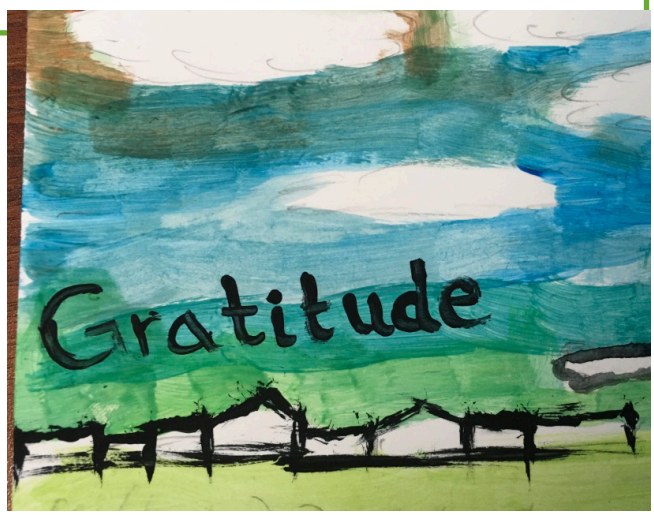
Figure 2.4

Changes in Level of Knowledge: Before & After The Becoming Workshop Activities (n=55)





The Becoming: Physical Resilience



Strengths Through Art

In addition to our five full-day workshops, we completed activity four, *Build your Strengths*, in a large class of first-year students preparing for their co-op placement in second or third year. Students completed the online Flourish Assessment and brought the printed feedback Profile with them to class. The Flourish team then facilitated the *Build Your Strengths* activity in the classroom during the first 15 minutes of the class. Students set a specific goal and were asked to use their strengths to pursue the goal. Much like students in *The Becoming* workshop, students were invited to complete a follow-up Flourish assessment at the beginning of the following semester.

This allowed us to compare feedback from three groups:

a. Students who completed the Flourish Assessment and attended the full day workshop – *The Becoming* (n=18).

b. Co-op students who only completed the Flourish assessment and were invited voluntarily to pursue a goal-setting activity. This is referred as the Goal-Setting Group (n=19).

c. First-year student who only completed the Flourish Assessment. This group is referred as the Comparison group (n=37)

Changes in these three groups' stress, well-being and student engagement are summarized in **Table 2.5** and illustrated in **Figure 2.5**.

Table 2.5

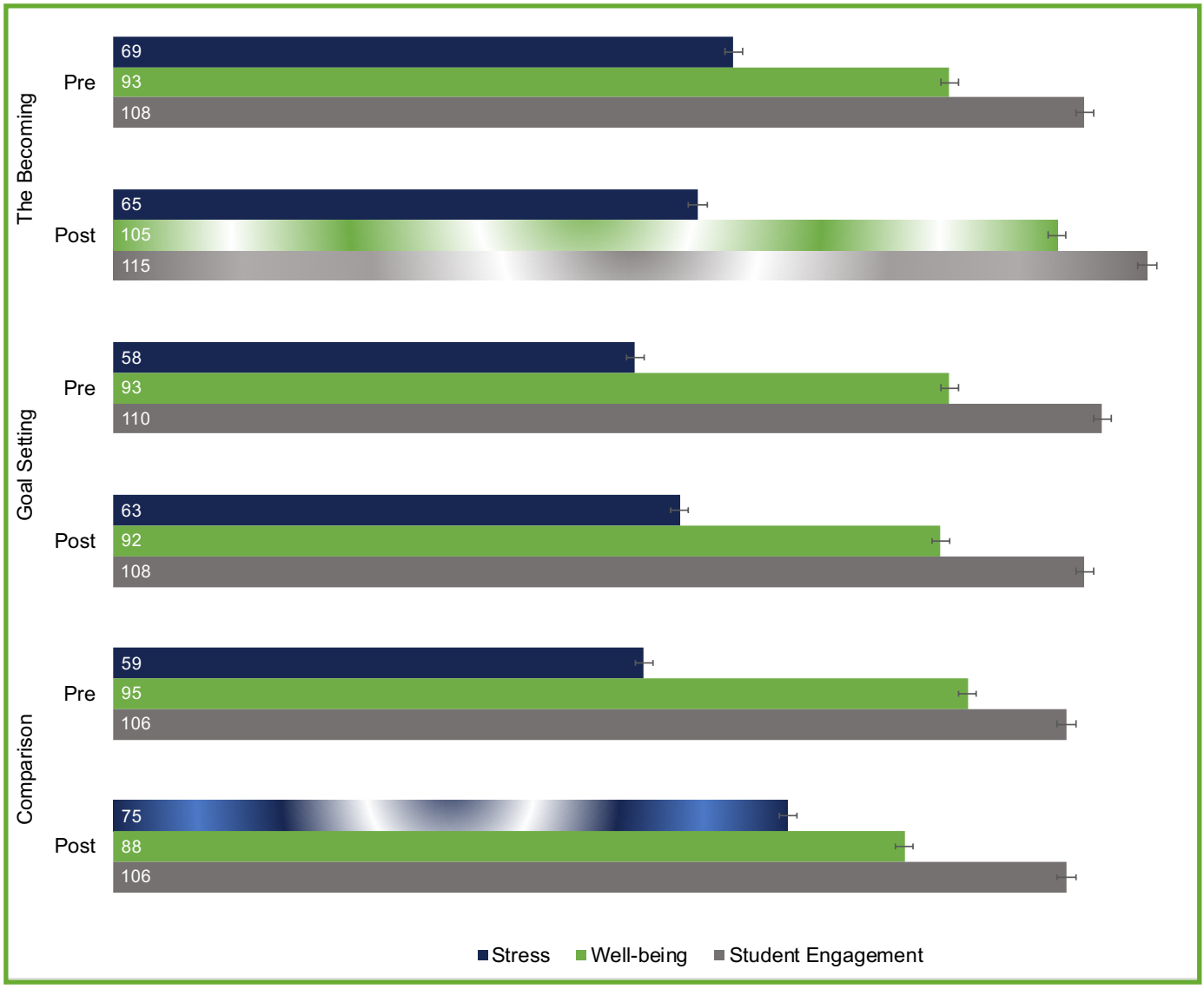
Stress, Well-Being and Student Engagement Mean Scores Before and After Attending *The Becoming* Workshop and Participating in a Goal-Setting Activity

	Becoming		Goal Setting		Comparison	
	Pre M (S.E)	Post M (S.E)	Pre M (S.E)	Post M (S.E)	Pre M (S.E)	Post M (S.E)
Stress (OQ-45)	68.7 (22.1)	65.4 (13.0)	57.7 (24.8)	61.5 (22.8)	58.9 (22.3)	**75.3* (17.4)**
Well-Being (FI)	93.6 (12.7)	**104.9* (11.1)**	93.2 (15)	91.8 (17.4)	94.9 (15.3)	87.8 (17.3)
Student Engagement (SEI)	107.6 (14.6)	**114.8* (13.7)**	109.5 (13.2)	108 (14.7)	106.2 (14.6)	106.1 (16.4)

*Note. M=Mean; S.E..= Standard Error; Pre- to Post-Intervention differences explored through paired t-test; * represents statistically significant differences at p<05*

Figure 2.5

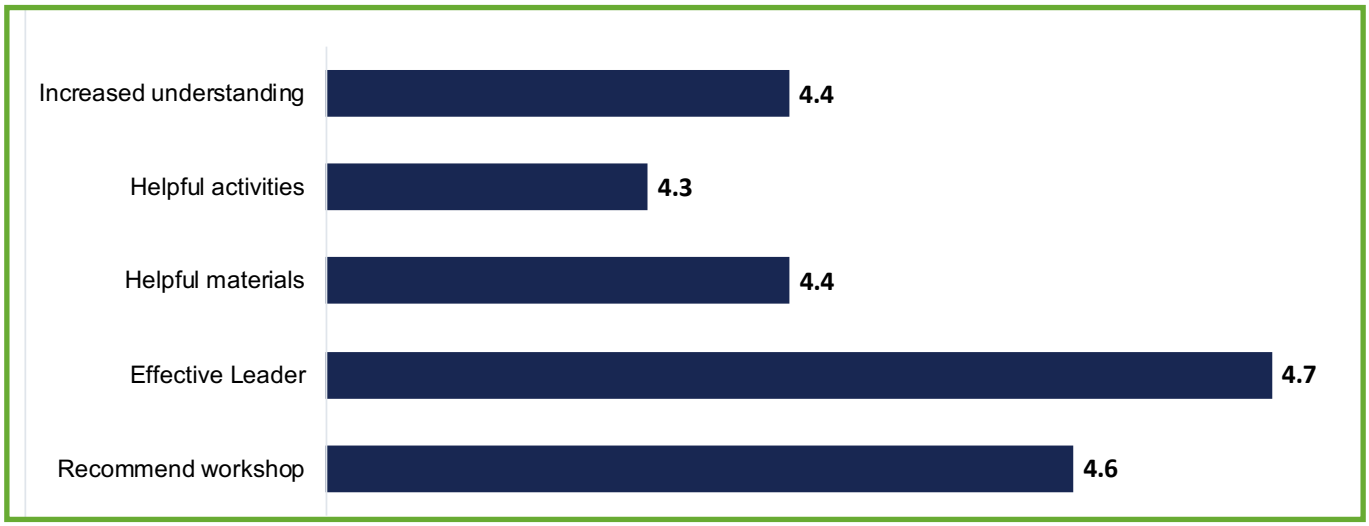
Changes in Stress, Well-being and Student Engagement Before and After Attending *The Becoming Workshop and Participating* in a Goal-Setting Activity



Note. Gradient fill indicates statistically significant differences from pre to post and/or pre to follow-up

At the end of each workshop, we solicited anonymous feedback from participating students. A total of 81 students completed the feedback about *The Becoming* workshop activities and their understanding of strengths. Results are summarized in **Figure 2.6**. Generally, on all items (with a Likert Scale of 1-5), the mean score is above 4.

Figure 2.6
Anonymous Feedback from *The Becoming* Participants (n=81)



When both qualitative and quantitative feedback are synthesized, our data concludes that the entire process of the Flourish program (assessment, participating in full-day *The Becoming* workshop, attending a 2-hour follow-up) results in decreasing stress and increasing well-being and student engagement. Whereas, merely completing the assessment, or pursuing a goal-directed activity, without actively engaging in well-being interventions such as *The Becoming* workshop doesn't result in enhanced well-being.

The beauty in completing Flourish assessments by term is the ability to see progress over the years, realize strengths and reflect upon personal development. I have adopted a forward-thinking mindset and set goals that have widened my scope of experiences.

I feel like we are integral to the university and I'm very happy with the environment that has been created; one that is very inclusive, relaxed, cooperative and stimulating. The programming has been great and I'm happy to have watched it progress.

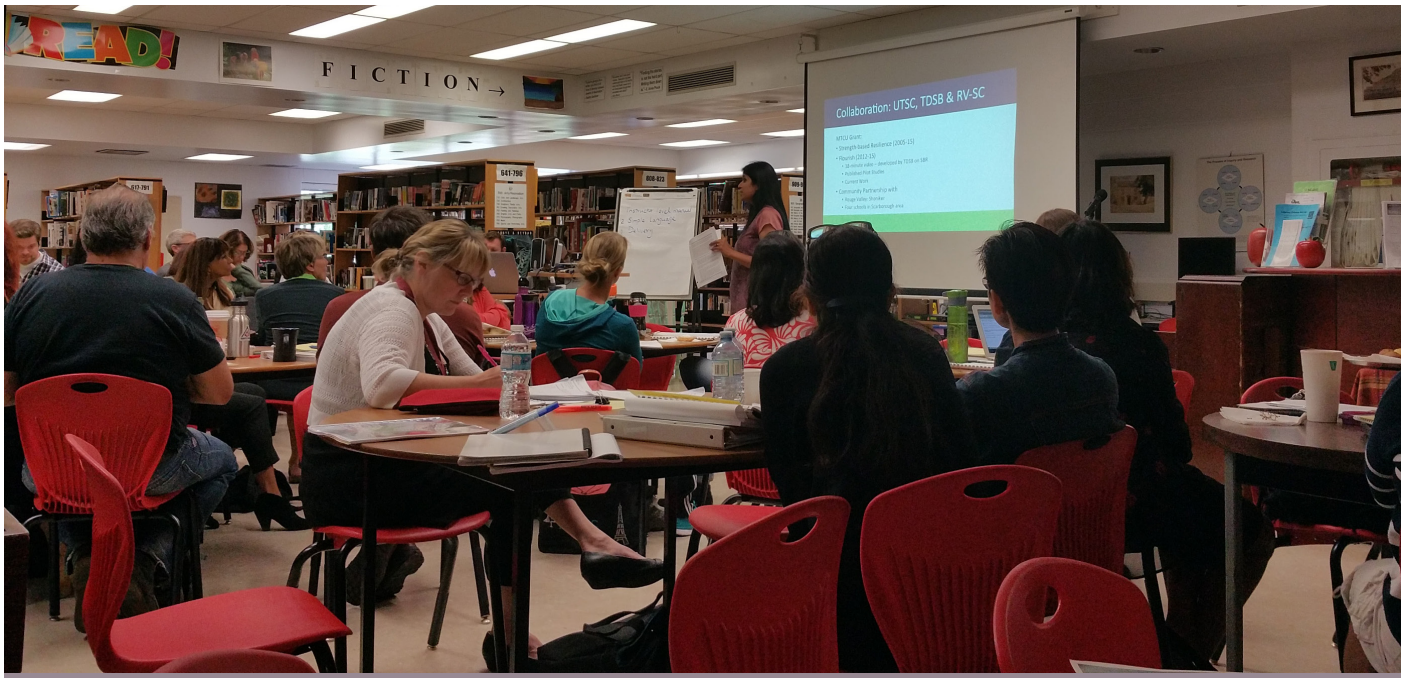
The team explained directions for every activity very clearly - the info from research studies was wonderful in terms of understanding weaknesses and strengths,

It was after this workshop when I realized the depth of what I can do with my strengths – a whole other world.

PART III: THE STRENGTHS-BASED RESILIENCE (SBR) PROGRAM

The Strengths-Based Resilience (SBR) program was developed originally under the title of Positive Psychotherapy (PPT). The Principal Investigator for the MHIF grant (Tayyab Rashid) conducted the original post-doctoral research under the supervision of Dr. Martin Seligman at the University of Pennsylvania. The initial results of the randomized trial of PPT were published in a peer-reviewed journal (Seligman, Rashid & Parks, 2006). Since its initial validation, more than 20 studies have been published (Rashid, Howes, Louden, 2017). A systematic review of PPT studies has also been conducted (Walsh, Cassidy & Priebe, 2016). This review shows that enhancing strengths is as efficacious as ameliorating symptoms.

PPT has evolved as a clinical intervention. Its major themes – resilience, character strengths, positive emotions, positive relationships and meaning – are applicable to any population, not just a clinical one. However, not all populations are amenable to therapy due to numerous reasons, including stigmatized notions of therapy and stereotypical associations of positive psychology with shallow happyiology. With the goal of creating a broader educational approach, Tayyab Rashid, in collaboration with Afroze Anjum from the Toronto District School Board (TDSB) and Jane Gillham – a leading expert in resilience and well-being from the Swarthmore College and University of Pennsylvania – created the Strengths-Based Resilience Program in 2006. SBR was empirically validated through four pilot studies, all completed at TDSB and published (Rashid et al., 2015).



SBR Training at TDSB

From its assessment to its full-day workshop *The Becoming*, Flourish is preventative and targets a non-clinical audience. Its interventions are brief and episodic.

SBR is distinct from Flourish. As overviewed in **Figure 1.5**, SBR is more treatment-oriented and includes a focus on clinical populations. SBR is a 10-12-session group intervention which aims to build resilience through teaching a series of evidence-based skills including developing cognitive accuracy and flexibility, identifying and expressing character strengths, coping with grudge through gratitude, incorporating slowness and savouring, and cultivating positive communication, relationships, meaning and purpose. Appendices E and F provide more details about the SBR program structure and content.

Our focus in this project is resilience. In addition to our goal of enhancing it, we explored how it relates to other characteristics that are desirable in secondary and post-secondary educational settings. In particular, we explored the association of resilience with symptoms, various aspects of well-being and student engagement for high school students as well as for post-secondary students. In both cases, we used the same measure of resilience (CD-RISC).

Table 3.1 shows that almost all desirable attributes such as well-being, positive emotions, relationships, academic engagement, cooperation, empathy, and self-control are positive and strongly correlated with resilience, whereas undesirable attributes such as symptomatic distress, bullying, hyperactivity, behavioral troubles and, most importantly, stigma against mental health, negatively correlated with resilience. Although our findings are correlational, the strength of association across measures suggests that resilience is not just one attribute. It likely brings along numerous other desirable attributes or those attributes contribute to making a student resilient. Likewise, a lack of resilience is associated with undesirable attributes.

Flourish earns University of Toronto Innovation Award

Table 3.1

Relationship among Resilience and Cognitive and Non-Cognitive Attributes

Post-Secondary Educational Settings (n= 298-317)		Secondary Schools Settings (n= 79-84)	
Symptoms, Overall (OQ-45)	-.53**	Symptoms, Overall (OQY)	-.36**
Symptomatic Distress	-.50**	Interpersonal Distress	-.46**
Social Relations	-.43**	Social Problems	-.28**
Interpersonal Relations	-.36**	Interpersonal Relations	-.32**
Well-being, Overall (FI)	.69**	Well-being, Overall (FIY)	.48**
Positive Emotions	.54**	Positive Emotions	.36**
Engagement	.63**	Engagement	.33**
Positive Relationships	.48**	Positive Relationships	.18**
Meaning	.48**	Meaning	.37**
Accomplishment	.68**	Accomplishment	.39**
		Health	.24**
		Academic Resilience	.42**
Student Engagement, Overall (SEI)	.61**	Social Skills (SSIS), Overall	.61**
Assignments	.45**	Communication	.23**
Classroom Behaviour	.28*	Cooperation	.20**
Exams & Presentations	.38**	Responsibility	.21**
Academic Motivation	.56**	Empathy	.31**
Campus Engagement	.39**	Self-Control	.27**
Academic Resilience	.36**	Somatic Complaints	-.36**
Campus Adjustment	.39**	Bullying	-.51**
		Hyperactivity/Inattention	-.58**
		Externalizing	-.59**
		Internalizing	-.68**
Stigma	-0.18	Stigma	-.27**

Note. OQ-45=Outcome Questionnaire; FI=Flourishing Inventory; SEI=Student Engagement
OQY=Outcome Questionnaire for Youth; FIY=Flourishing Inventory for Youth; SSIS=Social Skills Improvement System;

Important features of the SBR program are highlighted below and include development of training resources such as a train-the-trainer manual and accompanying online resources, train-the-trainer workshops, feedback from and follow-up with participants. Given the pre- and post-assessment aspects of the program with a clinical population, we also met research ethics approval requirements to ensure the quality of the research program and process. Each of these features are more fully described below.

Manual Development & Companion Website. The Flourish core team restructured and updated the Strengths-Based Resilience (SBR) manual from the first edition (2014) of the manual *Strong As Me*. This included incorporating feedback and recommendations from educators and clinicians. Changes include restructuring the order and format of lesson delivery and introducing a discussion subsection per lesson. The revised manual also includes a cultural and learning fit component for each lesson in the trainer manual to bring awareness to the fact that different students have different learning styles and cultural perspectives. No new core content was introduced or removed in this revision. The revised 2016 manual was used in the current SBR program implementation. In this manual, we increased the number of lessons from 12 to 14, accommodating requests from educators who preferred to cover content in 60-minute discrete chunks. We also created a companion website (www.strengthsbasedresilience.com) for the trainer which has core content, downloadable worksheets and multimedia embedded within each lesson. The website allows instructors to readily access teaching material and adapt it to their student audience. The manual jacket and website landing page are illustrated in Appendix E. The breakdown of each 60-minute session is described in Appendix F.

Train-the-Trainer Program Three-Day Training. We invited participation from seven schools in Scarborough that are considered feeder schools for UTSC. Four schools responded. In addition, at the request of school administration, we included North Albion Collegiate Institute (NACI), a high school which has experienced incidents of fatal violence in recent years. We also invited clinical staff from the Rouge Valley Health System – Shoniker Clinic. In total, we held 15 full-day training sessions and trained 133 secondary school teachers, administrators, clinicians, and professional post-secondary staff. To qualify as an SBR instructor, one must attend all three training sessions, covering all lessons in the program. A single training session ran for an entire day from 9 am to 4 pm.

Train-the-Trainer Full-Day Workshop. In addition, we organized four full-day SBR workshops to train student-facing staff in using SBR concepts and applications while working with tough situations in admissions, accessibility, advising, careers, academic integrity & diversity, student residence, and co-op. We trained 71 student service professionals through these workshops, held at UTSC, Centennial College and at the annual conference of the Canadian Association for College and University Student Services (CACUSS).

Resilient Parenting. The SBR program at TDSB also included Resilient Parenting, an hour-long workshop delivered at all five schools participating in the study. The parent council of each school invited through their newsletter all parents including those whose children were participating in the SBR program. We hosted five workshops in Fall 2016 and Spring 2017 attended by 15 to 30 parents each. The workshops focused on a strengths-based approach to parenting versus a remedial or deficits-based approach, ways to spot and enhance children's strengths, and the application of strengths-based resilience skills to deal with everyday challenges.

Feedback from Participants. We solicited anonymous feedback after each session. **Figure 3.1** summarizes this feedback from secondary school staff, using a 5-point Likert Scale. Overall, the program was well received. The in-session discussion components along with the supplementary videos were among the most frequently cited aspects of training that were found most helpful. Staff also often reported that they gained new perspectives on character strengths and effective communication.

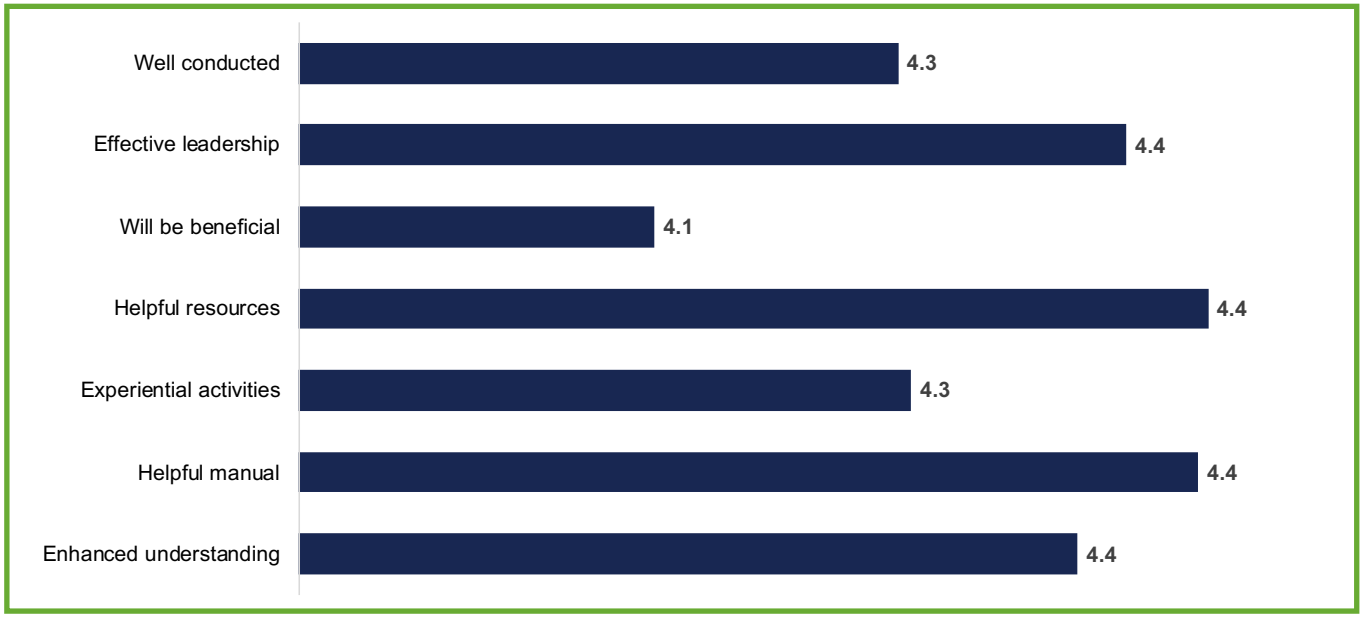
In contrast, many respondents felt that the duration of each training session was too lengthy. More concrete instructions for classroom implementation was common feedback, along with concerns of not having the tools to deal with potentially negative reactions elicited by certain SBR lessons. The last training session sought to address this constructive feedback by giving concrete classroom recommendations as well as ensuring staff that mental health counselling support was available should negative reactions arise. We also made necessary logistical changes as suggested by trainees such as flexibility in duration of a lesson or number of lessons, team teaching by two trained teachers, and use of additional multi-media resources as appropriate. All of these changes did not compromise the integrity of core concepts taught and skills imparted.

Follow-up with Participants. We recently completed a one-year follow-up survey of participants who attended the training. By the time this report was written, 28 individuals who completed the training a year ago had provided feedback. Results highlighted in **Figure 3.2** suggest that the positive effects of training persisted one year after the training.

Research Ethics Board Approval. The SBR training outlined above included three institutions that planned to implement SBR as an intervention. As outlined in the MHIF grant proposal, we also proposed a rigorous evaluation of the SBR intervention. In order to execute the evaluation, we obtained Research Ethics Board approval from University of Toronto, Toronto District School Board and Rouge Valley Research Ethics (RVHS).

Figure 3.1

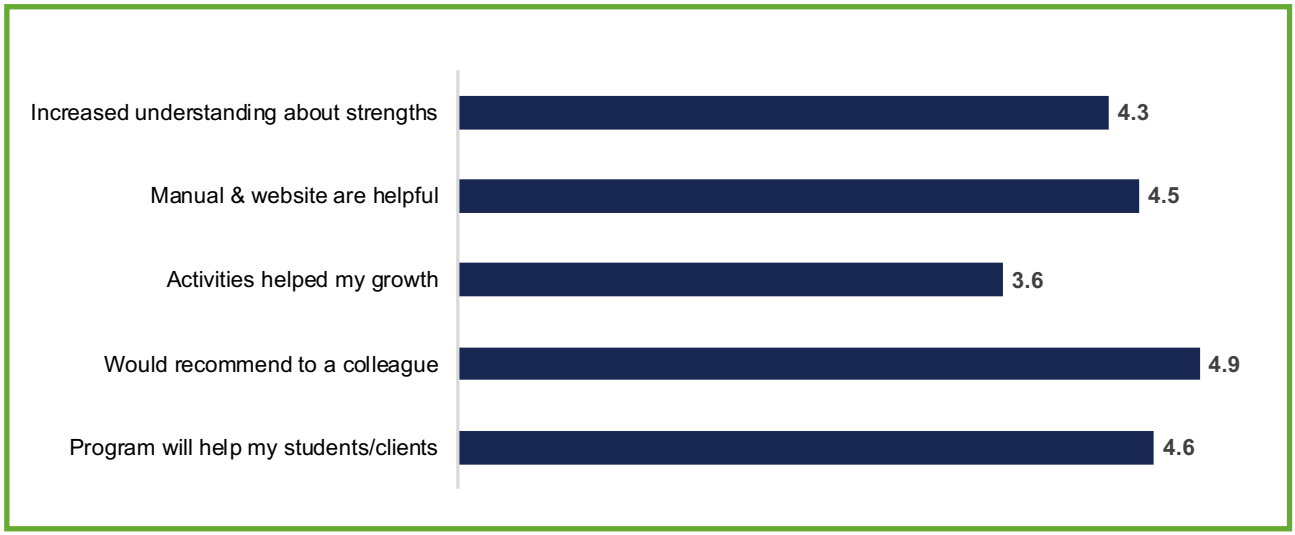
Anonymous Feedback Regarding Three-day SBR Training Completed by Educators and Clinicians (n=127)



Note. Each item asked participants to rate the item on a 5-point Likert Scale from 1= strongly disagree to 5=strongly agree

Figure 3.2

SBR: Train the trainer: Feedback one year after completion of training (n=28)



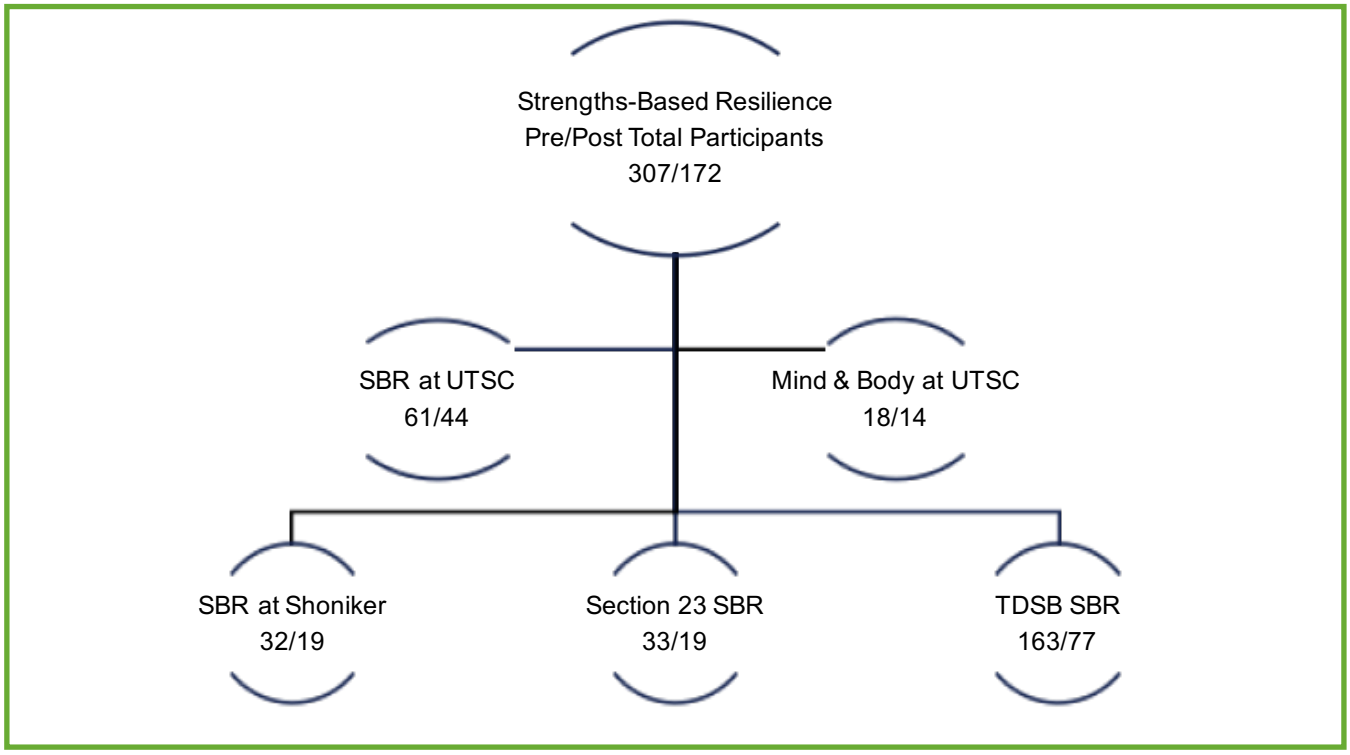
Note. Each item asked participants to rate the item on a 5-point Likert Scale from 1= strongly disagree to 5=strongly agree

Character Day Concerns: Fitting in, Fatigue, Future

Overview of SBR implementation

We implemented SBR in three settings (university, clinical and high school) to evaluate its impact on adolescents and young adults dealing with mental health challenges, including transition. A total of 307 high school and university students participated in SBR. **Figure 3.3** summarizes total participants across the three settings, with the initial number representing the starting number of participants and the subsequent number representing participants who completed the full program.

Figure 3.3
Overview of SBR Implementation in University, Clinical and High-School Settings



A total of 12 outcome measures were used to evaluate the effectiveness of SBR. **Table 3.2** lists these measures, where and with which students they were used and what their total scores measure.

SBR Mind & Body Group: Relaxation

Strengths-Based Team Building

Table 3.2
Outcome Measures Assessing Effectiveness of SBR

OUTCOME MEASURES ASSESSING EFFECTIVENESS OF SBR			
	Outcome	**Measured by**	**What does the total score reflect?**
Setting: UTSC SBR **Groups administered the following outcome measures:**			
1	Psychological Distress	Outcome Questionnaire (OQ-45) Lambert et al., 1996	The total score of 45-item measure assesses overall level of distress, as well as level of distress in three domains: symptomatic distress, interpersonal relations and social roles
2	Well-being	Flourishing Inventory (FI) Rashid, 2015	The total score from 25 items reflects overall sense of well-being, based on Seligman's theory of five domains: Positive Emotions, Relationships, Meaning, and Accomplishment, known as PERMA.
3	Resilience	Connor-Davidson Resilience Scale (CD-RISC), Connor & Davidson, 2003	This 25-item self-report scale measures the ability to cope with stress and adversity. The total score demonstrates resilience level.
4	Student Engagement	Student Engagement Inventory (SEI), Rashid & Louden, 2016	The total score from 40-item inventory shows students' level of engagement in seven areas: classroom behavior, assignments, examinations, academic motivation, academic resilience, campus engagement and campus adjustment. The Campus Adjustment Scale is administered after the first academic term.
5	Stigma	Stigma Scale (SS), King et al., 2007	This 42-item measure assesses the stigma of respondents in three domains: stereotypes, attitudes, and discrimination. The total score reflects respondents' perception of mental health and societal attitudes.
6	Grit	Grit Scale – short version, Duckworth et al., 2007	This 8-item self-report scale assesses trait-level perseverance and passion for long-term goals. The total score is divided by 8 to create a range from 1 to 5, with higher level showing more grit.
Setting: UTSC Mind & Body Group **In addition to above outcome measures, the Mind and Body Group at UTSC also included following outcomes.**			
7	College Adjustment	College Adjustment Test (CAT), Pennebaker, 1990	This 19-item survey taps students' thoughts and feelings about coming to college during the previous week. The total score measures adjustment to post-secondary settings.
8	Physical Activity	Physical Activity and Leisure Motivation Scale; (PALMS), Morris & Rogers, 2004	The total score on this 40-item measure reflects motivation to participate in physical activity and combines 8 sub-scales: mastery, enjoyment, psychological condition, physical condition, appearance, others' expectations, affiliation, and competition.
9	Fatigue	Brief Fatigue Inventory; (BFI), Mendoza et al., 1999	The total score on items of the BFI assesses level of fatigue as well as how much fatigue might have interfered with various activities on a scale from 0 (does not interfere) to 10 (completely interferes).
Setting: RVHS & TDSB **In addition to Resilience, Stigma and Grit, we administered the following adolescent versions of outcome measures.**			
10	Psychological Distress	Outcome Questionnaire Youth Version (Y-OQ), Burlingame et al., 2001	This 62-item self-report measure shows overall level of distress as well as in specific domains of symptomatic distress, interpersonal relations, social roles, and other problematic behaviours.
11	Well-being	Flourishing Inventory – Youth (FI-Y), Rashid et al., 2015	This 35-item inventory assesses students' well-being in terms of their positive emotions, engagement, relationships, meaning, accomplishment, resilience and health.
12	Social Skills	Social Skills Improvement System; (SSIS), Gresham & Elliot, 2008	This 76-item social skills measure reflects social skills including communication, cooperation, assertion, empathy, responsibility, engagement, and self-control. Problem areas are assessed in terms of hyperactivity, bullying, internalizing and externalizing.

SBR at the University of Toronto Scarborough (UTSC)

We evaluated the effectiveness of the revised version of the SBR program at UTSC through ten completed groups, during the grant period (April 2015-March 2017). Groups were delivered mostly by the Principal Investigator (PI) of the grant, Tayyab Rashid, and another clinician trained in SBR. Important research features of the groups are summarized below.

Referral Groups. The majority of referrals for SBR groups came from the Health & Wellness Centre (HWC). We targeted students dealing with transitional challenges to evaluate the effectiveness of SBR. However, assuming the low base rate—a priori chance or odds that a member of a specific population (post-secondary student in this case) will have a certain characteristic (transitional challenges)—we applied a broader criterion by including a number of mental health challenges faced by post-secondary students. We also liaised with our Access*Ability* Services and offered two SBR groups exclusively to students registered with Access*Ability*. The Academic Advising and Career Centre at our campus also helped us in referring students to SBR groups.

Exclusion Criteria. The exclusion criteria for participation in SBR included active suicidal ideation and plans, psychosis, and intellectual or developmental conditions which might prevent students from comprehending the contents of the group.

Comparison Groups. SBR groups were compared with therapeutic groups being offered at the same time by HWC. Clinicians facilitating these groups invited participants to complete online pre- and post-SBR evaluations.

SBR Group Format. SBR groups consisted of 10 sessions over an academic term with each session lasting an hour. The groups were generally offered in the afternoons Tuesdays through Thursdays, as these are considered the optimal time for student attendance. Each session followed more or less the components listed in Appendix F.

At UTSC, we received 72 referrals, of which 68 met the inclusion criteria and 61 participated in ten SBR groups which ran during the MHIF grant period (2015-2017). Of 61 students who started in one of the three SBR groups, 44 completed. Participants in the comparison groups attended group interventions in the same semester that the SBR groups ran.

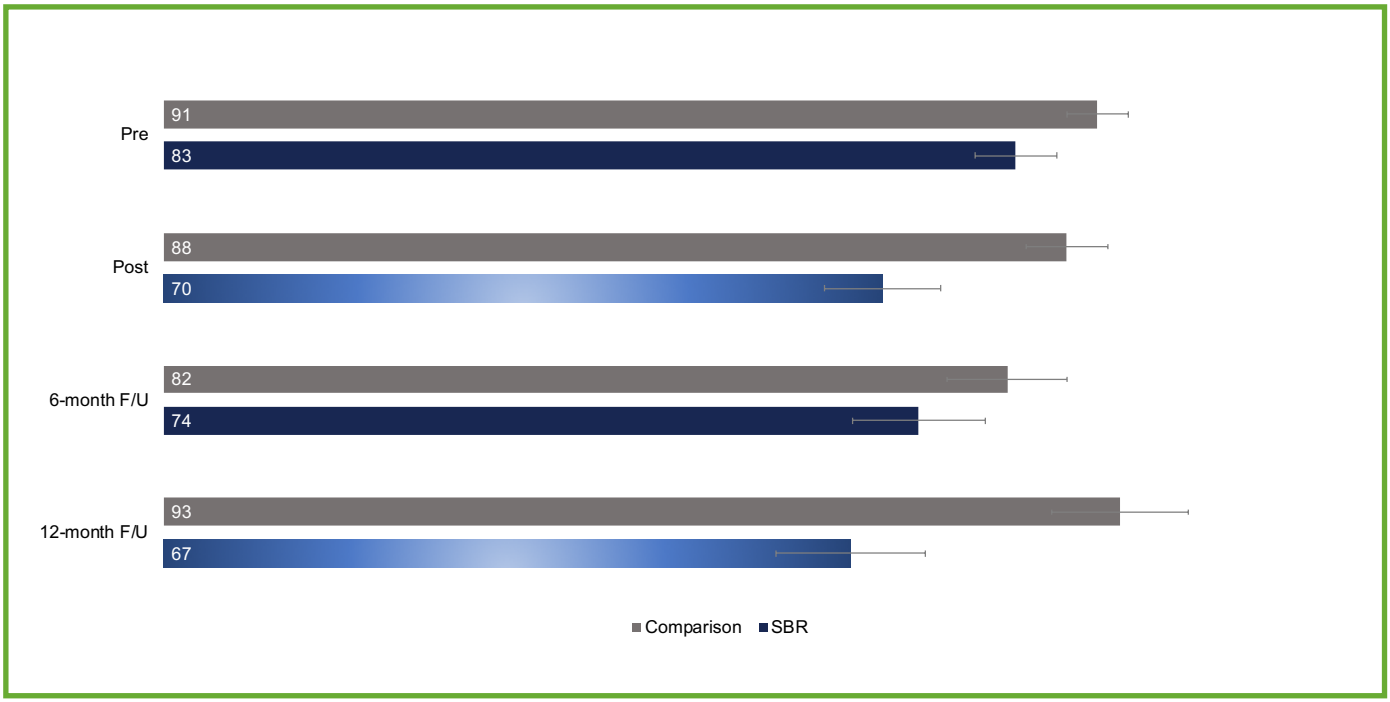
Mind & Body Group. In the last term of the grant (Winter 2017) with an amended approval from the Ethics board, we also offered a modified Mind & Body SBR group, in collaboration with Athletics & Recreation. Offered at a large Yoga Studio, in the Toronto Pan Am Sports Centre (TPASC), the psychological resilience part of the group (Mind) was facilitated by the study's PI (TR) and the physical part (Body) by a full-time staff member at Athletics & Recreation who is also a member of the core Flourish team. Participants in this group spent the first 45 minutes in physical exercise and then covered each core SBR topics in 45-minute blocks. The Mind & Body group was compared with a group exercise-only program that ran concurrently. A total of 14 UTSC students participated in the research, divided equally between the Mind & Body and the control group.

For the Mind & Body group, a total of 18 students completed baseline measures, while 14 (seven each in Mind & Body and Exercise alone) completed post-intervention measures. As the group assignment was not randomized, we controlled the baseline score statistically.

Data Analytic Strategy. Due to small sample sizes, especially for the comparison groups and also due to the exploratory nature of the study, we used independent group t-tests to explore group differences at four time points pre, post, 6- and 12-month follow-up. Appendix G contains mean scores, standard errors and statistical significance for all analyses.

Our results in **Figures 3.4 to 3.9** showed that, controlling for baseline pre-intervention differences, participants in the SBR group reported a significant decrease in the level of stress, a significant increase in well-being and a trend towards an increase in resilience. These gains were maintained with moderate strength at the six-month follow-up.

Figure 3.4
SBR at UTSC: Pre-, Post-Intervention, and Follow-Up Scores on Stress



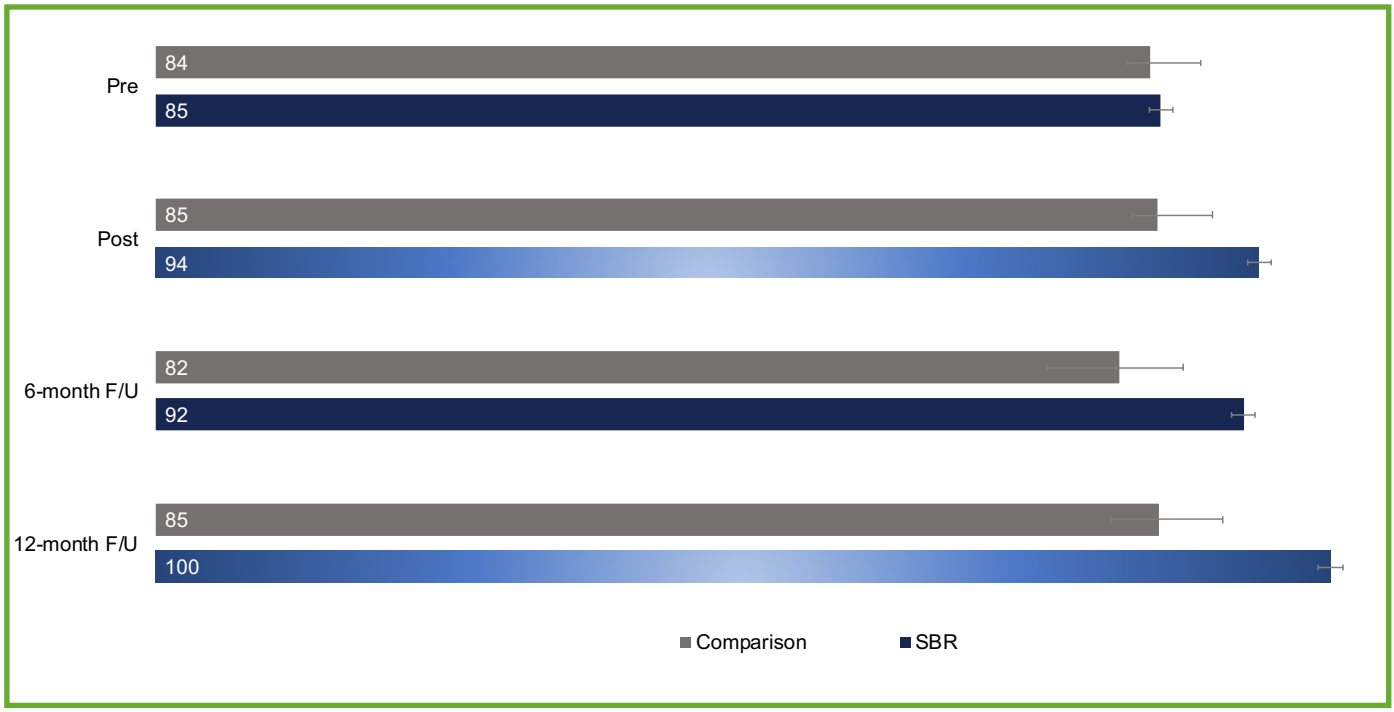
Note. Gradient fill indicates statistically significant differences between two groups; F/U=Follow-Up
See Appendix G, **Table G1** *for detailed data*

SBR Mind & Body Group: Rock Climbing

Character Day 2016: Art Activity

Figure 3.5

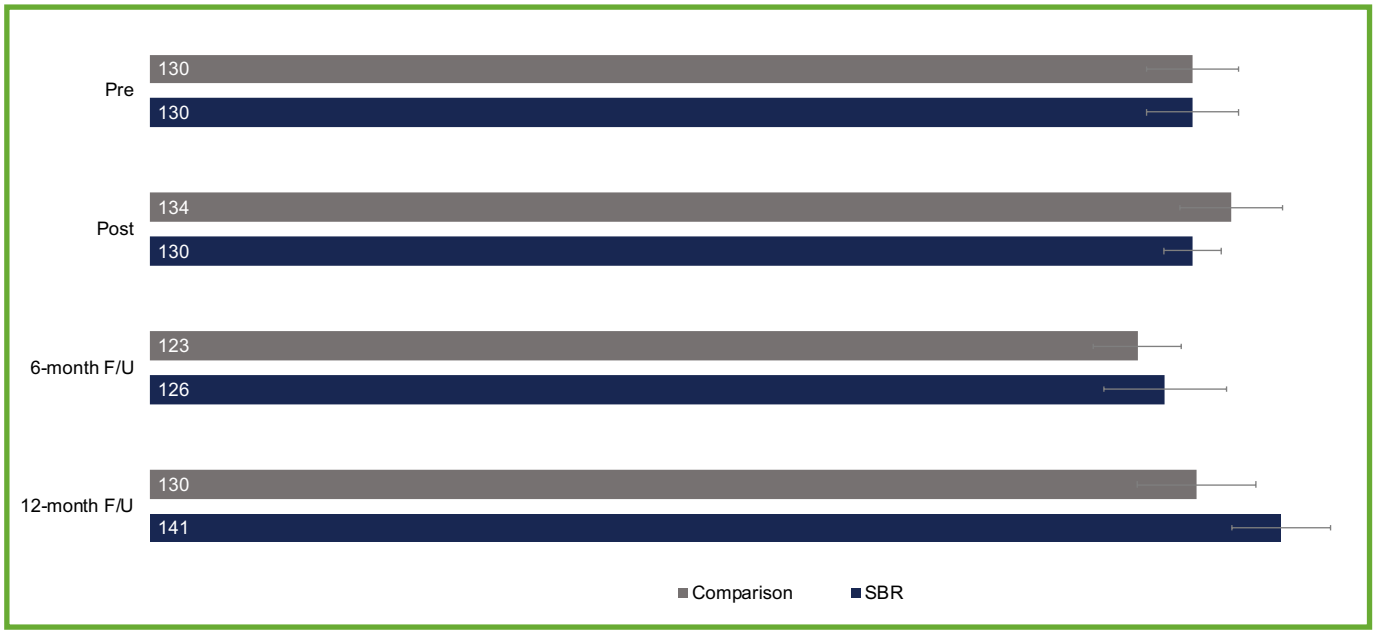
SBR at UTSC: Pre-, Post-Intervention, and Follow-Up Scores on Well-being



Note. Gradient fill indicates statistically significant differences between two groups; F/U=Follow-Up
See Appendix G, **Table G2** *for detailed data*

Figure 3.6

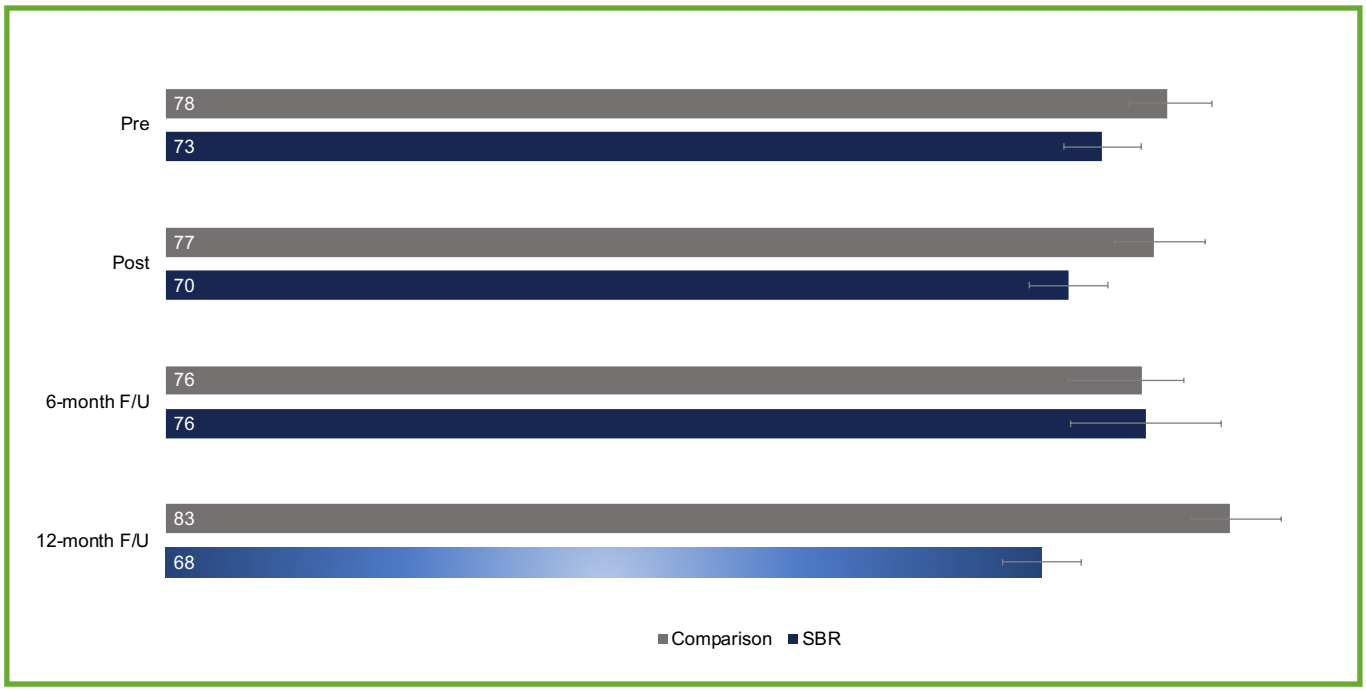
SBR at UTSC: Pre-, Post-Intervention, and Follow-Up Scores on Student Engagement



Note. Gradient fill indicates statistically significant differences between two groups; F/U=Follow-Up
See Appendix G, ***Table G3*** *for detailed data*

Figure 3.7

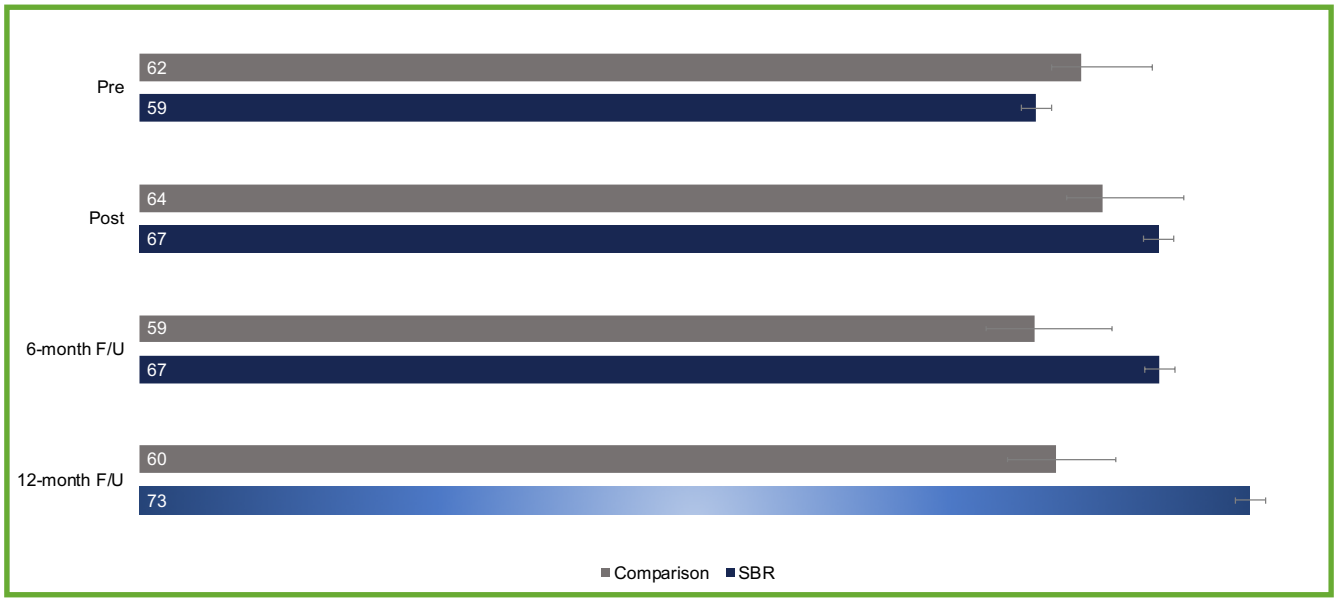
SBR at UTSC: Pre-, Post-Intervention, and Follow-Up Scores on Stigma



Note. Gradient fill indicates statistically significant differences between two groups; F/U=Follow-Up
See Appendix G, **Table G4** *for detailed data*

Figure 3.8

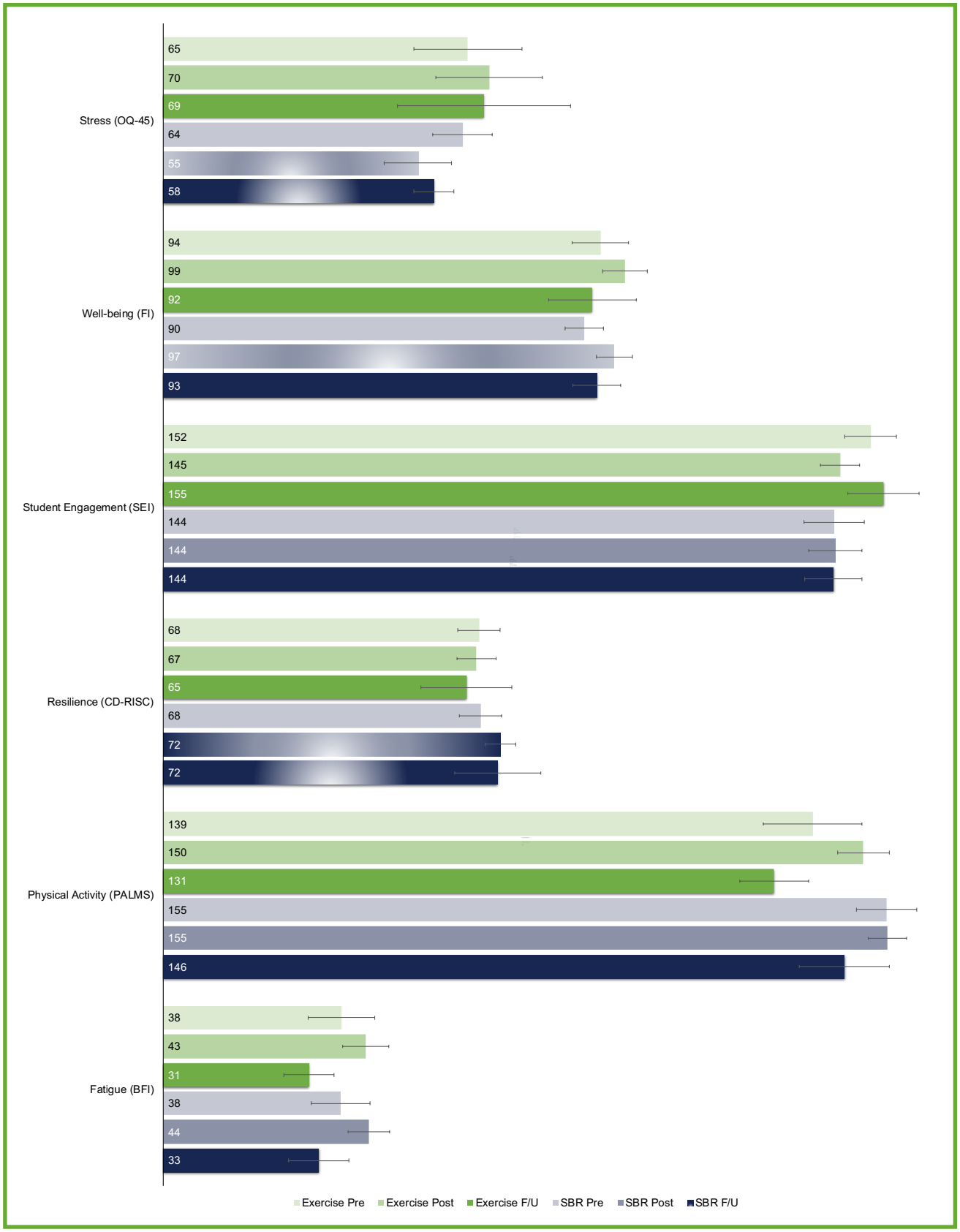
SBR at UTSC: Pre-, Post-Intervention, and Follow-Up Scores on Resilience



Note. Gradient fill indicates statistically significant differences between two groups; F/U=Follow-Up
See Appendix G, **Table G5** *for detailed data*

Figure 3.9

SBR: Mind and Body Version: Pre-, Post-Intervention, and Follow-Up Scores on Stress, Well-being, Student Engagement, Resilience, Physical Activity & Fatigue



Note. Gradient fill indicates statistically significant differences between pre- to post-intervention; F/U=Follow-Up
*See Appendix G, **Table G6** for detailed data*

Figure 3.10

Strengths-Based Resilience Group Feedback (n=42)

Note. Each item entailed a 5-point Likert Scale 1= strongly disagree to 5=strongly agree

Participants in UTSC's Strengths-Based Resilience groups provided feedback on the group using a 5-point Likert Scale as summarized in **Figure 3.10**. We also include some qualitative feedback from participants.

A third-year student reflects:

The group helped me count my blessings and feel more appreciative toward others.

A first-year student reflects:

Character Strengths helped me to know myself better. Gratitude helped me to make peace with myself.

A first-year student reflects:

I want to take what I've learned in the group and apply it afterwards to my life.

A first-year student reflects:

What I liked most about the group? Talking out the common problems/challenges; knowing our strengths and weaknesses; understanding and learning about your inner self better.

A second-year student reflects:

A comprehensive listing of positive human qualities; the encouragement to search for friends' view on your strengths;
using videos to support the teaching helps tons.

SBR at Rouge Valley Health System (RVHS)

We obtained Research Ethics Board approval to evaluate the effectiveness of SBR at two programs housed at the Shoniker Clinic within the Rouge Valley Health System (RVHS). These were:

- **Shoniker Clinic.** The staff who completed SBR training ran two SBR groups at the Shoniker Clinic, an outpatient clinic for adolescents with mental health issues, housed within the Rouge Valley Health System. The comparison group at the Shoniker Clinic was adolescents participating in comparable group interventions such as social skills, Dialectical Behavior Therapy, Cognitive Behaviour Therapy and Mindfulness. A total of 63 adolescents participated in the SBR program at RVHS.

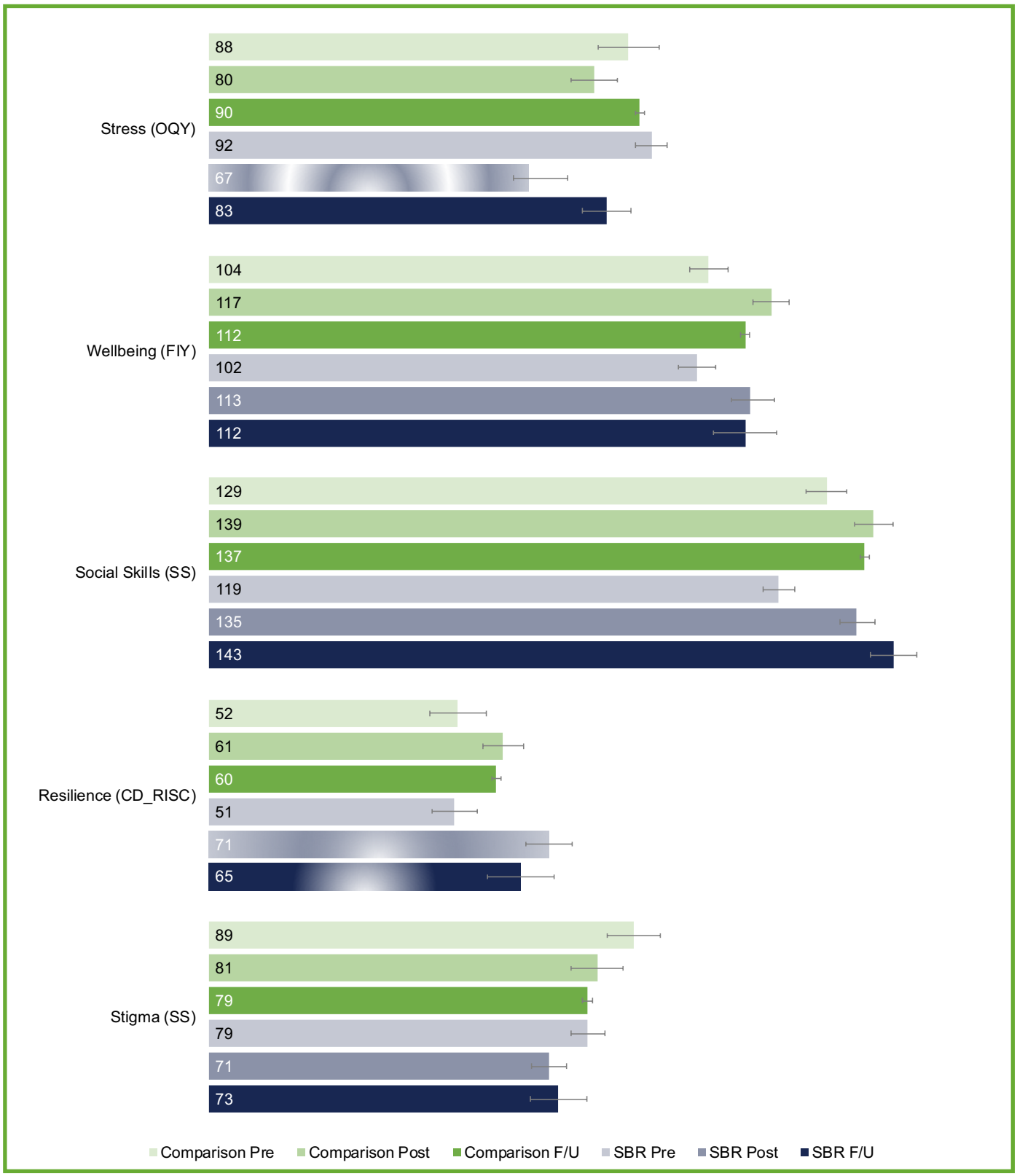
- **Section 23 Program at RVHS.** Embedded within the therapeutic services of RVHS is a Section 23 program which serves students who require their educational needs to be met outside of the regular school system, in specialized settings such as an outpatient hospital unit or at a community mental health agency. SBR at the Section 23 program was embedded within the educational curriculum. We did not have a comparable control group for the Section 23 program as it is a one-of-a-kind program at RVHS. However, the level of severity of distress and nature of presenting concerns at the Section 23 program is comparable to participants at the Shoniker program. Therefore, we consolidated the data of both programs and compared SBR with the comparison group at Shoniker who also received an active treatment.

Results of our SBR intervention at two out-patient, hospital-based adolescent units showed that participants who completed the SBR group reported significantly less stress, more well-being and resilience and decreased stigma. We did not find differences in resilience and stigma among UTSC students. However, adolescents attending RVHS programs, experiencing severe clinical conditions, benefitted through reduced stigma and increased resilience as shown in **Figure 3.11** and in **Table G7** in Appendix G.

SBR Mind & Body Group

Figure 3.11

Strengths-Based Resilience at RVHS: Baseline, Post-intervention and Follow-up Scores on Stress, Well-being, Social Skills, Resilience and Stigma



Note. Gradient fill indicates statistically significant differences between two groups; F/U=Follow-Up
*See Appendix G, **Table G7** for detailed data*

SBR at Toronto District School Board (TDSB)

A critical feature of our grant was to understand and intervene with students in the secondary school system through our program, Strength-Based Resilience (SBR). Staff who completed SBR training ran these SBR programs. Each school was given the opportunity to find the best fit for embedding SBR within their curriculum. **Table 3.3** summarizes the curriculum area each school used for the SBR group as well as the courses concurrently taken by participants in the comparison group.

Table 3.3

List of courses where SBR was embedded at Five Toronto District School Board Schools

	SBR at Five TDSB High Schools	Embedded in	Comparison Course
1	SATEC (Scarborough Academy for Technological, Environmental and Computer Education)	Careers & Family Studies; Applied Geography	Career & Food & Culture Courses
2	Wexford Collegiate School for the Arts	Academic English	Another English Class
3	R.H. King Academy	Mentorship	Mentorship class not receiving SBR
4	Malvern Collegiate	Careers	Another Career Class
5	North Albion Collegiate Institute	Leadership	Another Leadership Class

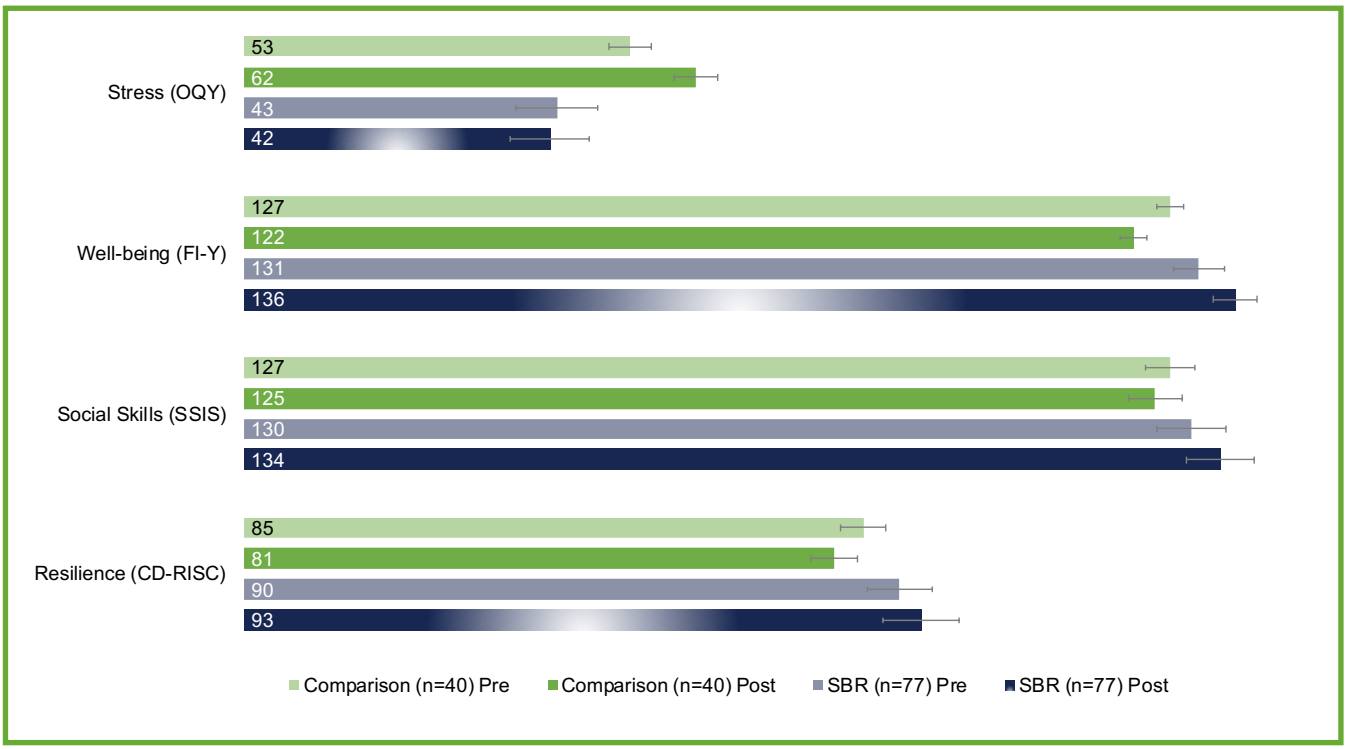
Data pooled from five participating schools are consistent with our UTSC and RVHS results. Those who completed the SBR curriculum reported significantly fewer signs of stress, a higher level of well-being, improved social skills and a higher level of resilience as illustrated in **Figure 3.12**.

Our 6-month follow-up data in **Figure 3.13**, albeit completed by fewer participants, shows that most of these gains were maintained, with participants in the SBR group scoring significantly high on the measure of resilience. Most importantly, students reported that they were still using most of the skills and finding them helpful in solving everyday problems.

The Becoming: First Ambassador Group Training

Figure 3.12

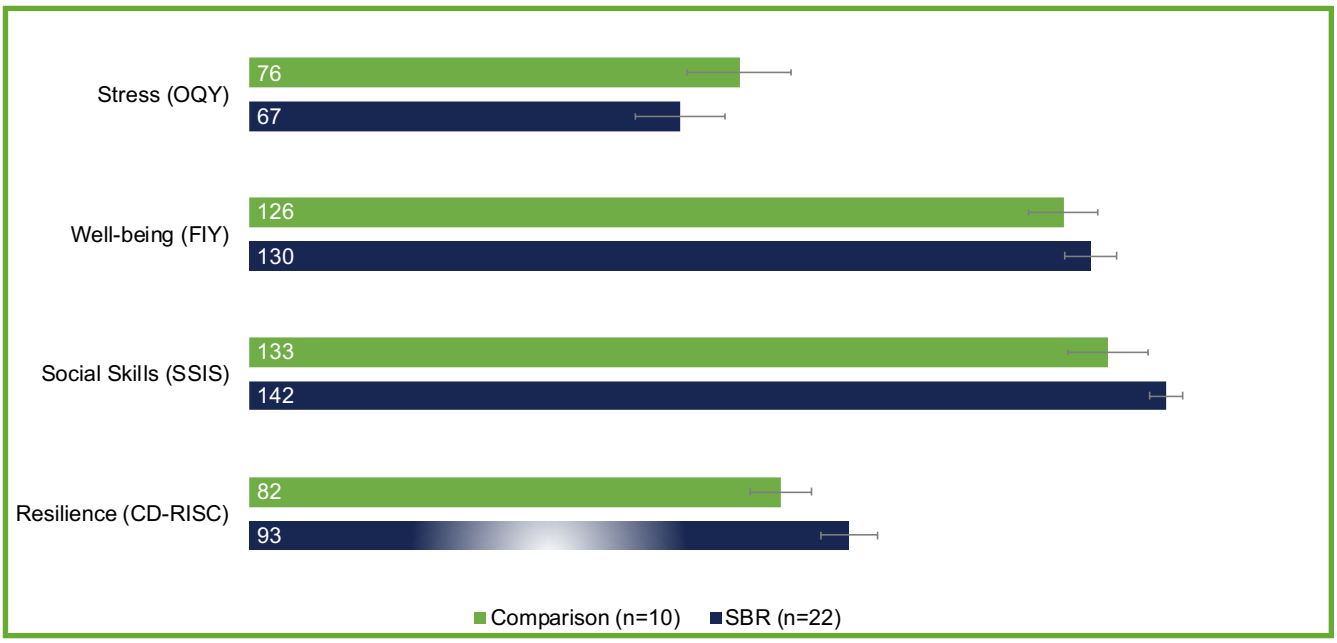
Strengths-Based Resilience at TDSB: Pre- and Post-intervention Scores on Stress, Well-being, Social Skills and Resilience



Note. Gradient fill indicates statistically significant differences between two groups;
*See Appendix G, **Table G8** for detailed data*

Figure 3.13

Strengths-Based Resilience at TDSB: Six-Month Follow-Up Scores on Stress, Well-being, Social Skills and Resiliences



*Note: Gradient fill indicates statistically significant differences between two groups; See Appendix G, **Table G9** for detailed data*

Quantitative and qualitative feedback suggests that students were receptive to the program and acknowledged that the program helped them to learn skills. **Table 3.4** overviews feedback about the utility of each lesson. For most students, mindfulness and relaxation exercises were most useful, followed by Mindset (fixed or growth), story of resilience, character strengths and positive relationships.

Table 3.4

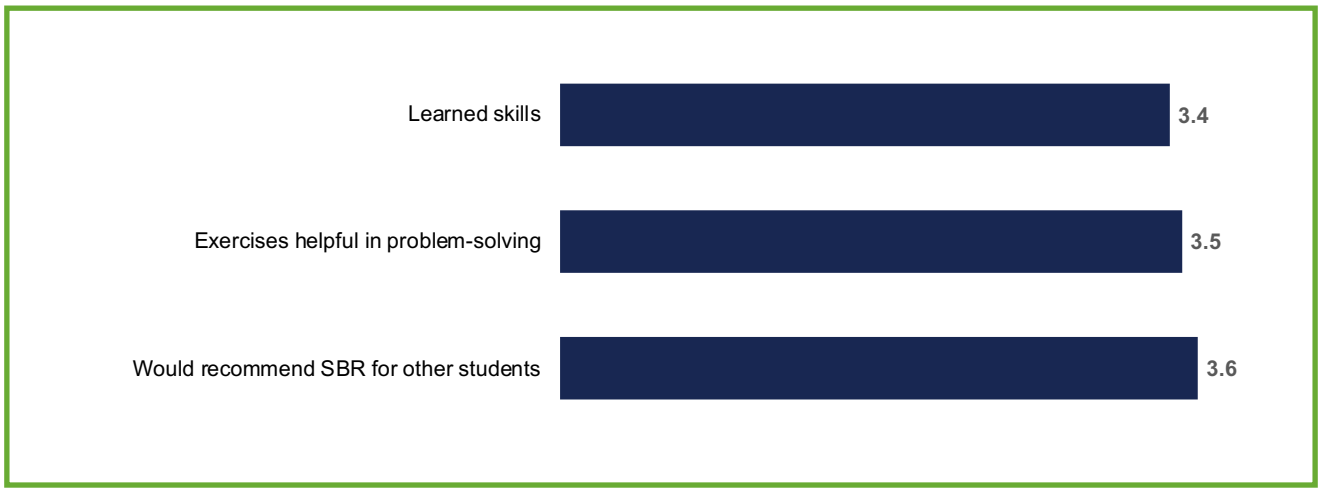
SBR Exercises Assessed by Helpfulness of Topics, as Ranked by Participants (n=82)

	SBR Exercise Topic
1	Mindfulness
2	Mindset
3	Resilience
4	Character Strengths
5	Positive Relationships
6	Meaning
7	Empathy
8	Gratitude
9	Accuracy & Flexibility
10	Grudge
11	Savouring

Figure 3.14 summarizes anonymous student feedback from students at the mid-point and at the end of the intervention.

Figure 3.14

Feedback from a Sample of Grade 10 Students Completing the SBR Program



Note. Each item entailed a 5-point Likert Scale 1= strongly disagree to 5=strongly agree

Our student participants share their thoughts.

This program helped encourage me to be a stronger and better person and not let anything bring me down. I realized I have to face every problem/ obstacle with a positive attitude.

I have used this lesson (Fixed & Growth Mindset) in my daily life because whenever I get a bad grade on a test, my growth mindset helps me to have a better attitude and improve for next time.

I try to use many of the techniques when I have problems. At school, I tried to stop overgeneralizing my marks and made an effort to avoid assuming I will fail the entire course because of one bad mark.

I've learned to adapt to stress and adversity more easily and instead of getting all worked up over something I stress about, I try to figure out ways that I can improve the situation.

I now try to participate in activities that match my strengths, and solve problems using them now that I know what they are.

I've applied mindfulness in my daily life – now I am aware that it's okay to take things slowly and to give myself some time to calm down and relax when I get overwhelmed or stressed by upcoming tests.

Flourish Strengths Workshop

PART IV: CONCLUSIONS

We conclude our report with a brief summary of the findings from our two programs from which we direct our recommendations in the following section. We also provide a summary of how we have and will continue to disseminate our experience to other educational institutions and professionals.

Key Findings from Flourish

Our first finding supports our theoretical model, Complete Mental Health by Corey Keyes (discussed in Part 2) that mental illness is not merely the presence of symptoms. It is also the absence of well-being. Resilience is a core part of well-being. Though students on the UTSC campus are not any more distressed psychiatrically, our findings indicate they are less resilient.

Results of our 5-year longitudinal study show an increase of 4 percent among first-year students who accessed counselling services, controlling for variation in total number of students accessing services. Nearly one in five first-year students accessed counselling services. This increase could be due to a lowering of stigma against mental health and/or increased levels of distress. Although, our study did not find an overall increase in levels of distress, and/or decrease in resilience and well-being, we did find a decrease in the number of students flourishing, and an increase in the number of students languishing.

The mental health of students, especially those transitioning to a post-secondary setting, is better understood when their stress and well-being are measured separately, then synthesized in terms of flourishing and languishing states. When assessed from only a psychiatric distress perspective, our large sample of first-year students did not show any significant increase in psychopathology. However, when analyzed from flourishing (high well-being, low stress) and languishing (low well-being, high stress) perspectives, our data showed a decline of 8 percent (from 46% to 38%) in flourishing states of first-year entrants over a 4-year period (2012-2016). This same period saw a 14 percent increase in students in a state of languishing (from 21% to 34%).

Second, our results confirm what is already well documented in research literature: transition to post-secondary institutions continues to be challenging. Those who enter PSEs struggling, are likely to continue struggling, unless comprehensive, sufficiently long and evidence-based interventions are provided. We found that those who entered university distressed were much more likely to remain stressed and, in most cases, their mental health worsened.

When interventions are not provided or sought, students struggle in various ways. Quantitative and qualitative analysis of the data shows that the three top presenting concerns are relationship difficulties (34%), anxiety (32%) and depression (25%). Strikingly, these three concerns were identified by 529 counselling centre directors across American and Canada, in their annual survey. Nearly 10 percent of UTSC students at the time of intake reported suicidal ideation. Students with academic challenges were significantly more likely to report suicidal ideation.

Third, students' mental health—flourishing or languishing—plays a critical role in their physical health and graduation status. Those who started university in a languishing state had significantly more visits to the health centre (both for counselling and physical health). Students who entered university in a flourishing state are twice more likely to graduate (46% vs. 22%) within a 5-year graduation cycle.

Fourth, a state of flourishing is not a mere category. Our data shows distinct differences between flourishing and languishing students. In addition to significant differences in the graduation rate, flourishing students manifest a distinctly different set of strengths, marked by gratitude, kindness, appreciation of beauty, love, hope, humour and courage. In contrast, for students entering post-secondary settings in the languishing category, zest tends to be the very last of their 24 strengths. In other words, specific strengths facilitate flourishing, in terms of resilience and well-being.

Key Findings from Strengths-Based Resilience (SBR)

Our Flourish project over the last 5 years has reinforced an alarming trend of declining well-being: students are reporting higher levels of stress and lower levels of well-being as they enter university. As an intervention program, our Strengths-Based Resilience program is able to demonstrate effectiveness in helping students cope with stress as they transition from secondary to post-secondary settings. Across three sites – the University of Toronto Scarborough, the Toronto District School Board and the Shoniker Clinic, Rouge Valley Health System – pre- and post-assessment data have demonstrated reductions in stress, gains in well-being and social skills and favorable changes on measures of resilience and stigma.

Across three sites—ranging from a sample of cognitively bright, diverse and urban post-secondary students to secondary school students in careers classes to those who are unable to continue their education due to significant mental health issues, we intervened with a total of 77 students who completed our 10-12 lesson group program. We compared their outcomes with a total of 40 students receiving a comparable level of intervention in their respective settings. Overall, using valid and reliable measures, we found that the SBR program is effective in reducing psychological distress and stigma, and in enhancing well-being, resilience and social skills. Our 6-month follow-up data, albeit completed by fewer participants, shows that most of these gains were maintained. Most importantly, students reported that they were still using most of the skills and finding them helpful in solving everyday problems.

Legacy Assets

This MHIF project has encompassed a clinical sample of more than 2,500 students. It has involved nearly 3,000 first-year students and more than 300 high school students. It has offered 15 full-day training sessions, training 127 student educators and professionals. It was a massive undertaking that couldn't be accomplished without effective, mutually beneficial, and congenial collaborations set out in Appendix C.

During the grant period, we revised the SBR manual to incorporate multiple levels of feedback. Our current SBR manual, training program and online training resources facilitate structured, strengths-focused, culturally relevant experiential training that caters to various learning styles. Completed by 127 professionals across many disciplines, our 3-day training program has been well received. From overwhelmingly positive anonymous feedback, we are confident our training has sparked a genuine interest among educators to focus on strengths and positive resources. The SBR companion website helps teachers and clinicians to teach the content with minimal demand on their preparation time.

In addition to our research findings, our funding allowed us to create and curate valuable resources, including a 280-page manual, with accompanying interactive website, a comprehensive assessment battery and feedback profile – with both digital and hard copy versions – and a student-centred strengths journal. Modified versions of our assessment and feedback profile are available from our website for use by the general public. Our Flourish Ambassadors peer program has trained more than 100 students, including student leaders: 29 of these students have earned the program-related Co-Curricular Record (CCR) credit.

We have disseminated our findings through national and international conferences and have published results in an edited volume and article (Appendix H). A number of post-secondary institutions in Canada and beyond, including St. Francis Xavier University, Dalhousie University, Monash University in Australia and University of Otago in New Zealand, have adapted aspects of our program (e.g., assessment, workshops, resilience program). Durham College in Ontario has established an official partnership with us, through the Centre for Innovation in Campus Mental Health (CICMH) whereby we will work with the senior administration to make recommendations for how Flourish and SBR can be implemented at their college. 29 managers from various student services at Centennial College have been trained in SBR and in Fall 2018 plan to implement key aspects of the SBR program in their work.

Our strengths-based program has been featured as an illustration by the Resilience Consortium (https://resilienceconsortium.bsc.harvard.edu/university-toronto) led by six Ivy League universities and received recognition by CACUSS for its innovative approach (Appendix H). The Flourish Assessment is being used by the Association of Atlantic Universities as a foundation to build resilience and coping skills. It is also being implemented at a school district in Northern Ontario which has a large number of students from Indigenous communities.

After every presentation at regional, national and international conferences, we receive compliments for starting an evidence-based program. In the past 4 years, we have received many emails requesting to adopt or adapt the program internationally. This feedback and follow-up highlight the need for more evidence-based resilience and well-being programs in post-secondary education. We offer our recommendations for how to achieve this in the following pages.

PART V: RECOMMENDATIONS

Flourish and SBR programs have demonstrated a reduction in stress and stigma and increases in well-being and resilience. They are examples of programs that can achieve for post-secondary institutions both an early and comprehensive understanding of a student's state of mental health and address existing and emerging gaps through a holistic, continuous improvement approach.

Flourish and SBR programs explore the multidimensional nature of resilience noted in Part I in relation to HEQCO's comprehensive 2016 report (Patry & Ford) that conceptualizes resilience as an education outcome. Our research has supported the predictive power of resilience and its protective character. Our programming demonstrates that it can be systematically taught through a process and lead to beneficial outcomes. Resilience's robust association with almost all desirable attributes suggests that once taught experientially, its benefits will carry over in other domains, including emotional and vocational.

While all students can benefit from the general resilience training and education offered by Flourish, efforts to support struggling students through an SBR program can not only increase their likelihood of persisting to graduation and entering the workforce, but can also reduce the burden of demand for service on the institution.

Our experience over the last 2 years offers insight to other educational institutions. With great humility and the hope of sharing the benefit of our experience, we offer for consideration recommendations in relation to four levels of support for Ontario students transitioning from secondary to post-secondary education:

1. **Secondary and post-secondary administrators**
2. **Mental health service professionals**
3. **Student service professionals**
4. **Ministry of Advanced Education & Skills Development (MAESD)**

Secondary and post-secondary administrators

1. **Cultivate students' character, enhance resilience and develop habits of mind and spirit.** The discovery of one's unique strengths, abilities, talents and skills is critical to students' learning and ultimately to their ability to lead a fulfilling and meaningful life. Our longitudinal quantitative data has demonstrated a clear and robust relationship between character strengths and well-being. Post-secondary education needs to cultivate character, enhance resilience and develop habits of mind and spirit that can withstand tough times.

2. **Adopt a holistic and comprehensive approach to mental health.** Post-secondary institutions should approach the mental health of their students through evidence-based frameworks such as the Complete Mental Health Model (Keyes, 2007) which focuses equally on symptoms and strengths. Deploying such a model at the entry point into a student's post-secondary journey will enable institutions to set conditions that promote flourishing. At the same time, early identification of languishing students will enable timely intervention.

3. **Build institutional support for well-being and resilience program goals and align them with the institution's strategic goals.** Gain support from the highest level of the institution and tie program goals to institution's strategic goals. Find ways to sell the "soft" nature of a strengths-based program with "hard" evidence (time, money, outcomes). For example, the Mental Health Strategy can be reconceptualized as an institutional well-being strategy, with specific funds, resources, faculty and staff assigned to it.

4. **Collaborate with the Registrar to embed well-being programming into the process of recruitment, registration and retention.** Taking advantage of the communication cycle already in place with first-year students will increase buy-in by students and engagement in programming activities. Well-being program details can be promoted during recruitment, their assessment can be made an official step in the registration process and central measurement can be done on the impact on retention from first to second year through to graduation.

5. **Anticipate infrastructure needs to launch program and scale it over ti**me. Long term sustainability of programs requires an investment of time and resources for: 1) Information technology support to develop assessment portal and build website(s); 2) Marketing support to build communication and social media strategy. 3) Trained facilitators to recruit and train peers, deliver programming and support audiences for both practical well-being goals and more complex clinical needs.

6. **Cultivate conditions that enable flourishing and address languishing.** Institutions must organize their resources to create conditions that help students to flourish, while continuing to identify and work with those who are in a state of languishing. For example, flourishing students tend to have strengths such as gratitude, love, kindness, love of learning, hope, optimism, curiosity and zest. Research shows that almost all these traits are malleable. That is, institutions can initiate their own unique ways to express gratitude at good things that take place on campus. Optimism and hope are highly buildable characteristics and can be celebrated. Campus-wide initiatives focused on spotting, acknowledging, and celebrating strengths can build a culture of well-being and resilience.

7. **Utilize systems capabilities to enhance online assessment potential.** We recommend that campuses offer a comprehensive online assessment, with confidential, interactive personalized feedback, linking results to concrete, effective, and accessible resources for students. An online system can make provisions to ensure a cumulative record of feedback is readily available to students, that is, they are able to notice changes in their well-being, stress, student engagement and physical activity level. In cases where they are experiencing a significant increase in their stress, and/or drop in their well-being, the system can generate on- and off-campus resources automatically, encouraging students to utilize these resources in a timely fashion.

8. **Make post-secondary education a hub for credit courses on personal development.** Students need scaffolds for uncovering and understanding their personal values and beliefs. They also need individuals on campus who can support these processes of self-discovery and self-determination. Personal growth, well-being and resilience courses organically provide such opportunities, such as the immensely popular course *Positive Psychology 1504* at Harvard, attended by more than 1400 students and *Psychology and the Good* at Yale with more than 1200 students, and many other reputable institutions of higher learning. Senior academic administration should seriously consider offering personal growth and development related courses as these enhance students' knowledge about themselves, improve their life and career outcomes and create good citizens. These courses are not meant to be prescriptive but descriptive in terms of scientific constituents of personal growth, well-being and resilience.

Mental health service professionals

9. **Systematically track which students access services, when and wh**y. There is a steady increase in the number of first-year students accessing counselling services. Insights from our Mental Health Scan, and findings from the Flourish program show that it is important that mental health professionals collect and analyze reliable data to understand what drivers bring students for counselling and what timing in relation to the academic calendar. To complement appointment data, professionals can seek systematic feedback from former students who sought services and learn what helped them and what could help or hinder their peers not accessing services.

10. **Investigate the drivers of and obstacles to self-referral.** Nearly two thirds of UTSC students reported that they self-referred for counselling services. It would be helpful if campuses are able to ascertain what prompted students to self-refer, and which specific aspects of the information about counselling services helped them to self-refer. We recommend that along with the referral source, referral time also be requested at the time of intake. This will help to understand the temporal efficacy of referral, that is, do students seek counselling support immediately when they are referred or do they seek it when an acute need arises?

11. **Explore ways to expedite referrals to appropriate services in a timely fashion.** From available data, we could not extrapolate when is the optimal timing of referral. For students dealing with transitional challenges, referral for counselling is beneficial as soon as possible. However, due to self and public stigma, many students do not access services until their symptoms deteriorate, often causing functional impairment. It would be beneficial to train staff and faculty in recognizing symptoms of distress and making timely referrals. This will help in understanding what factors in academic life and calendar coincide with the onset of symptoms, when services are accessed and utilized, and whether timing of the accessibility facilitates (or not) the outcome. Special efforts should be made to do effective outreach that targets students who enter PSE in languishing states so that timely referrals can be made.

12. **Educate Faculty to make effective referrals that alleviate distressful and risky student situations.** Our mental health scan also showed that first-year students who are unable to accomplish academically (as measured by lower cGPA) are at an elevated risk of experiencing suicidal ideation. Relatedly, students who had graduated, when asked about specific transitional challenges they encountered in their first year, reported their top challenge was "meeting academic expectations." It would be beneficial for mental health professions to liaise with departments of student life to collaborate with faculty in offering evidence-based training in dealing effectively with students who exhibit suicidal ideation and behaviour.

13. **Build expertise of clinical staff to respond to top presenting concerns.** Often counselling services are offered according to available expertise of staff, rather than the presenting concerns of students. Our finding that 23 percent of relationship concerns related to family is an important one. In the case of UTSC, it reflects the demographic and cultural contours of our unique campus, however this diversity is an increasing reality on many campuses in Ontario and across Canada. An implication of this finding would be to offer students strategies and skills to negotiate family-related issues. Furthermore, counselling centres may offer online resources and psychoeducational workshops for families to support their students' transition experience.

14. **Educate the broader community about the long-term nature and benefits of well-being and resilience programming**. Incorporating well-being and resilience through educational endeavours into the fabric of a campus is an important undertaking that should begin with a commitment to a long-term investment and a sound understanding of local demographics. A systematic analysis will uncover the mental health challenges and needs of students, policies and programs in place to close the gaps and measures to evaluate effectiveness. Programs need to be accessible to all members of the campus community from the President and senior management to facilities staff.

Student service professionals

15. **Highlight the long-term importance of the first-year experience as the most crucial year of post-secondary education.** As iterated in this report numerous times, the first-year transition period for students is critical. Educators and student service professionals need to be vigilant to ensure that vulnerable students' transitional challenges do not go unnoticed. Students might disclose concerns to a variety of on-campus members, among faculty, staff and students, who all need to be familiarized with the importance of the first-year transition. That way, if a vulnerable student is missed by one student service, or inadvertently not attended to by another, students are eventually directed to seek help, and hopefully in a timely manner.

16. **Implement programs that anticipate the multiple touchpoints throughout a student's educational journey and build upon existing programming.** Well-being programs like Flourish and SBR can be built into existing student development programs (e.g., leadership certificates, work study programs, peer and mentorship program.) They can also be inserted into the annual calendar to coincide with students' availability (e.g., Reading week or early in the term) and stress cycle (mid-terms, finals).

17. **Offer services across the campus, making mental health a collective responsibility that all student services, not just counselling, play a role in supporting.** As this program demonstrated, there are a number of ways to collaborate with other departments from Student Life to Co-op. Partnering across the campus offers the possibility to expand the reach of evidence-based resilience and strengths-based resilience interventions, with different levels or mandates being able to adapt the duration, calibrate the focus, and customize interventions depending on the unique resilience demands of the student group in question.

18. **Work with student groups and student leadership to deploy a strengths-based peer-support network.** Students, especially Millenials, value working with other students. Incorporating a peer-to-peer component can get healthy conversations started across campus and increase the reach of the program. Taking the learning to captive student audiences such as clubs, major events (e.g., Summer and Fall orientations, conferences) and classrooms that embrace personal development (e.g., Co-op, Psychology, Business) can increase engagement and develop champions and change agents.

19. **Teach SBR to student service professionals across campus.** Post-secondary environments offer students a number of advising relationships—with academic advisors and career coaches, mental health professionals and accessibility consultants, and staff in the Registrar's office and Financial Aid. A strengths-based approach can enrich the bonds these professionals build with students and improve their effectiveness in uncovering students' unique needs. If professionals are trained in a strengths-based perspective, they can help student to reframe the problem, urging students to use their strengths. This can result in enhancing students' motivation.

20. **Foster collaboration skills among students as an antidote to the competitive nature that characterizes campus life.** Competitiveness defines many aspects of campus life and can as a result heighten students' anxiety. Campus staff, working from a strengths-based perspective can widen students' perspective of success and help them approach challenges from a collaborative, relationship-management perspective. By guiding students in reflection and discussion, they can help students search for a sense of purpose and meaning in their pursuits. They can coach students to set meaningful, achievable, and realistic goals in the face of competitive situations and cultivate positive relationships to achieve these goals. Understanding resilience will help students recognize that inevitably they will not win all the competitions nor will they lose them all. However, knowing one's strengths can buffer them against setbacks, as strengths build confidence and self-efficacy.

21. **Collaborate with service learning and co-op preparation course leaders to introduce a strengths-based approach to preparing students for work-term experiences.** Well-being and resilience learning concepts can be applied to service and co-op learning, in particular modules related to flexible thinking, problem solving through strengths, relationship-building and communication which are all skills valued by service learning and co-op hosts.

22. **Use technology to build awareness of programs, services and resources about resilience and well-being on campus.** It is important to be where students are by embracing adaptive use of social media technologies such as Twitter, Facebook, Instagram and Snapchat. These platforms can provide a vehicle for increasing awareness of and support for mental health issues, reducing stigma and building a community that celebrates strengths. Moreover, these platforms can be used effectively to reach students who need mental health services the most but are least likely to seek them through traditional means.

Ministry of Advanced Education & Skills Development (MAESD)

Results of our Flourish and SBR projects show that flourishing is an important construct which is strongly associated with higher resilience and well-being, lower stress, lower use of student services and higher graduation rates. For example, our findings that flourishing students were twice more likely to graduate within five years than their languishing colleagues and also less likely to utilize counselling services have important policy implications. Schools, colleges and universities can put in place policies and processes whereby languishing students are offered evidence-based strategies and skills to move them towards flourishing states.

We therefore recommend that MAESD:

23. **Continue to support evidence-based research into mental health and programming related to post-secondary transition.** Such research will enhance our understanding of why mental health concerns are on the raise and how holistic approaches can support students.

24. **Create a grant program for educational institutions to enable them to build comprehensive mental health programming.** A holistic approach to mental health in post-secondary education requires investing in the necessary resources in program and infrastructure development. Continue to emphasize the importance of specific, concrete, measurable, achievable and relevant criterion. Sophisticated program evaluation which includes meaningful and concrete outcome measures (e.g., cGPA, graduation rates, health indices such as number of visits, quality and quantity of sleep, employment status) should be an integral part of funding.

Flourish Executive Team

25. **Invest in training post-secondary education student service professionals in program evaluation methods and techniques.** Post-secondary student service professionals (not including faculty) tend to hesitate in evaluating the effectiveness of their programs, assuming a rigorous research undertaking is needed. They will benefit from training which demystifies program evaluation and equips them with skills and resources to regularly undertake program evaluation. This will not only improve the quality of their programs but more importantly, it will also increase their knowledge and understanding of what works for students and what doesn't, without requiring complex outcomes research.

26. **Make resilience an explicit learning outcome in post-secondary education.** Consistent with the definition of the HEQCO report on resilience, we recommend fostering resilience as a transferable skill in the post-secondary system through formal, informal, explicit and implicit endeavours. This transferable master skill will yield for our youth lifelong benefits - be it applied to academic, career or personal life management.

27. **Fund programs that tie mental health interventions with improving students' career and employment outcomes.** Students entering and exiting post-secondary education are often anxious about their employment prospects. Supporting programs that enhance their employability and build bridges to employers will not only ease their entry into a world of work and professional life that is more fragmented, competitive and credentialed than that experienced by earlier generations. It might also lessen increasing rates of anxiety and depression.

Flourish Core Team

IN CLOSING

We are grateful to the Ministry of Advanced Education and Skills Development (MAESD) for this Mental Health Innovation Fund grant which, in 2 years, has achieved a number of targeted programming milestones.

We are thankful to campus collaborators including dedicated staff of the Registrar's office, Access*Ability* Services, the Academic Advising & Career Centre, Athletics & Recreation, Student Residence, Arts & Science Co-Op programs, and the Office of the Dean, Student Affairs. We couldn't have accomplished the goals of this project without enthusiastic support from relevant staff of our community collaborators, Rouge Valley Health System-Shoniker Clinic and Toronto District School Board.

Indeed, it takes a village to help a student transition smoothly to post-secondary settings.

While working with collaborators over the last 2 years and sharing more recently our experience with educators and mental health professionals at conferences, we have noted a consistent response to our project: a recognition of the importance of resilience training for youth transitioning to post-secondary, and enthusiasm for adapting our strengths-based approach to other educational settings.

We are pleased to share the benefits of strengths-based resilience strategies, tools and resources with students, educators, and the general public. We close with some thoughts for the future.

A strengths-based approach, as espoused in this project, presents a paradigm shift for post-secondary education - from failure prevention and survival mindset to one that promotes flourishing and a resilient perspective. Rather than focusing exclusively on academic challenges, deficits and vulnerabilities, our approach emphasizes strengths, talents and abilities that students bring as they transition to post-secondary. Instead of assessing what students lack academically and accelerating their successful graduation through academic remediation, the strengths-based approach focuses on gradual self-awareness and self-development.

For millennials, the campus remains a hub where their intellectual, social, and creative resources converge at a developmental crossroad, one which perhaps will never come again in their lives. Therefore, it is the campus' responsibility, as well as opportunity to set conditions "right and ripe" whereby students both master theories and theorems inscribed in books and learn skills to deal with their toughest challenges by developing resilience and persistence. Millennials will benefit from evidence-based practices to building their resilience. If there is one place that can systematically build these skills, it is the campus.

At such a campus, they acquire strategies to turn credentials into careers and learn skills to bounce back from setbacks. They turn challenges into opportunities and commitments into callings. They do not just meet in social media forums but meet face-to-face to refine their critical reasoning, social and emotional intelligence, problem-solving and relationship skills to sustain flourishing lives and face inevitable challenges, with resilience

With gratitude
Tayyab & Ruth

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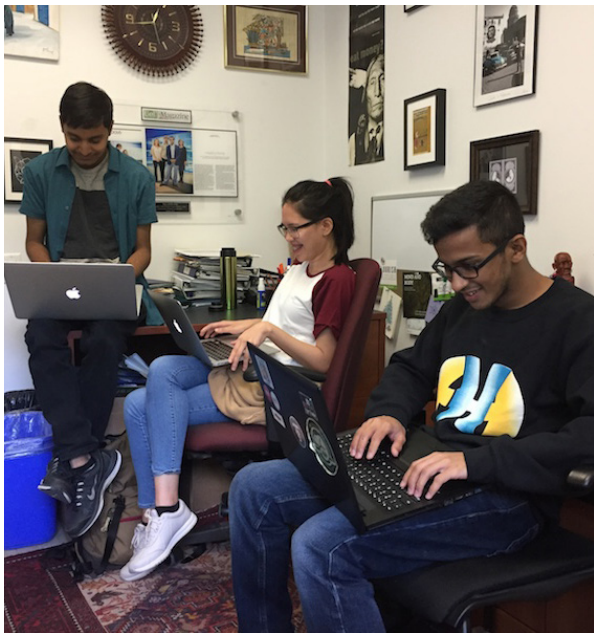


Student Research Support Team

SBR Team presents at IPPA 2017

PART VII: APPENDICES

APPENDIX A: GRANT OUTCOMES JUNE 2015 TO JUNE 2017

1. Establish Program Team

- Organizational structure of program has been in place since Summer 2015 (Appendix B).
- Hired two Project Coordinators.
- Established stakeholder teams at all three sites (UTSC, SC-RVHS, TDSB).
- Executive, Stakeholder and core teams met regularly.

STATUS: COMPLETED

2. Select Students and other Participants

UTSC: Flourish program for all UTSC students

- Over 2,000 unique students completed the Flourish assessment.
- Acquainted 500+ incoming students with program concepts during 45-minute orientation workshop.

UTSC: Strengths-Based Resilience (SBR)

- Through referral from the Academic Advising & Career Centre, Access*Ability* Services, and the Health & Wellness Centre, hosted ten 8-10-week groups teaching strengths-based resilience. Professional staff identified and referred students facing mental health or academic challenges.
- 79 students started in various SBR groups, 58 completed whereas 20 students started as comparison and 16 completed a post-assessment.

RVHS - Shoniker Clinic: Strengths-Based Resilience (SBR)

- 65 adolescents at RVHS - Shoniker Clinic started SBR and 38 completed it.

TDSB: Strengths-Based Resilience (SBR)

- Five TDSB schools, SATEC @ W.A. Porter Collegiate Institute, Wexford, Malvern, R.H King Academy & North Albion Collegiate taught Strengths-Based Resilience programs.
- 163 Grade 10 students completed pre-assessment and 77 completed the program in 2017.
- 43 Grade 10 students in two Civics and Careers classes at SATEC participated in the SBR program completed in 2016.

STATUS: COMPLETED

3. Design SBR Curriculum

- Revised training manual to incorporate feedback from teachers, consultants, and the stakeholder team resulting in the completion of a 14-module curriculum.
- Created accompanying student workbook with accessible worksheets for student use.

S T A T U S : C O M P L E T E D

4. Develop Program Technology

- Updated and completed Assessment portal at UTSC.
- Updated and completed all assessment tools (online and print), meeting AODA compliance.
- Created website and online resources for SBR trainers (www.strengthsbasedresilience.com).

S T A T U S : C O M P L E T E D

5. Implement Train-the-Trainer Workshops

- Facilitated 15 full days of training, completing five rounds of 3-day training between Fall 2015-Winter 2017.
- A total of 127 educators, clinicians and administrators completed three-day SBR training and received completion certificate.
- 17 UTSC administrative staff attended 1-day Flourish training
- 31 Student Services Professionals from various student services attended a full-day SBR workshop at the Annual Conference of the Canadian Association of Colleges and Universities Student Services (CACUSS)
- 28 Student Services Staff from Centennial College in Ontario completed 1-day SBR training

S T A T U S : C O M P L E T E D

6. Implement program with students

- Implemented program from Fall 2015 at UTSC consisting of a wide range of events over 2 years (see Appendix D).
- Implemented program at the Shoniker Clinic (RVHS) in February 2016 and completed by May 2017.
- Implemented program at TDSB in 2016-17

S T A T U S : C O M P L E T E D

7. Establish Control Groups

- UTSC: 20 students participating in group therapy sessions offered by the Health & Wellness Centre served as comparison group.
- TDSB SATEC 2016: Grade 10 class of 21 students participated as a comparison group; 18 students consented to participating and 13 completed pre-and post-assessment
- TDSB 2017: 40 students participated as comparison group at five TDSB high schools (SATEC, RH King Academy, Wexford CI, Malvern CI, North Albion Collegiate Institute - NACI),

S T A T U S : C O M P L E T E D

8. Conduct Assessments

- Over 2,000 students completed Flourish Assessment at UTSC during the grant period
- 58 students referred to SBR groups at UTSC completed pre- and post-assessments
- 117 students at TDSB completed pre- and post-assessments
- 64 students at Shoniker Clinic and TDSB's section 23 program completed pre-assessment

S T A T U S : C O M P L E T E D

9. Design and Conduct Peer Mentorship Training

- Engaged program participants in development of peer program goals and roles through online feedback forms and two in-person focus group sessions.
- Engaged Ambassador group of 43 Flourish Ambassadors in six programming events and four outreach events. 29 of these 43 Ambassadors completed all requirements to earn Flourish Ambassador co-curricular record (CCR) credit.
- Hired a Flourish Coordinator to run Ambassador Program.

S T A T U S : C O M P L E T E D

CACUSS Innovation Award 2018 for SBR Program

CACUSS Innovation Award 2015 for Flourish

10. Report Outcomes & Share Knowledge

Published first book chapter on initial results

Built online assessment portal accessible to wider education community and general public

Presented at five conferences:

1. Canadian Association of College & University Student Services (CACUSS) annual conferences:

2015, Vancouver: Workshop: Flourish: A Strengths-Based Approach to Student Services

2016, Winnipeg: Talk: Taming Egos, Tempering Aspirations

2016, Winnipeg: Workshop: The Becoming

2017, Ottawa: Full-day Preconference on Strengths-Based Resilience (SBR) for Student Services Professionals

2017, Ottawa: Who is Flourishing and Who is Languishing on our Campuses?

2. Canadian Positive Psychology Association (CPPA), June 2016

3. International Positive Psychology Association's World Congress, Montreal

2017, Montreal: Round Table: SBR Program Development and Delivery

2017, Montreal: Workshop: The Becoming: Enhancing Psychological, Physical and Academic Resilience

4. National Campus Mental Health Conference, 2017, Toronto: Talk - SBR: Fostering Meaning and Purpose

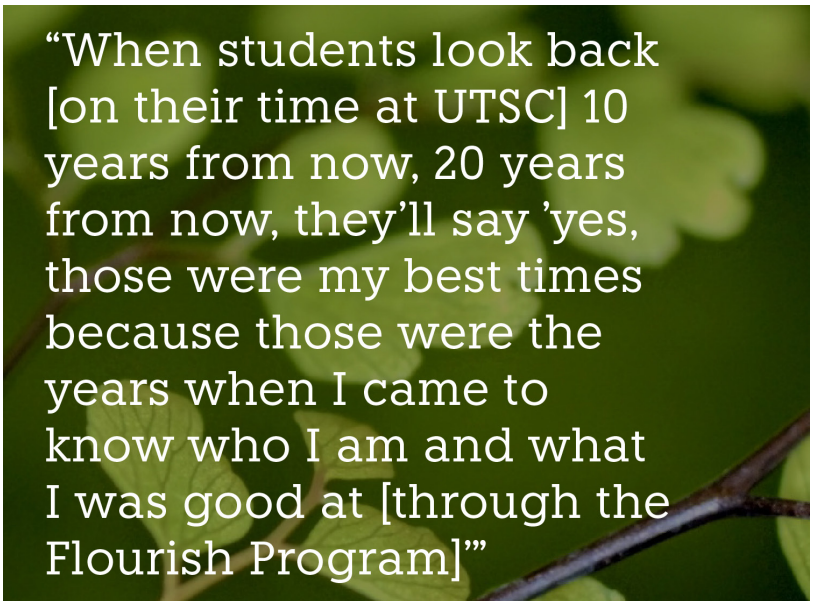
5. Centre for Innovation for Campus Mental Health (CICMH)

2017, Toronto: Campus Mental Health: Policy and Programming: Insights from longitudinal outcome data

2018, Online: Strengths-Based Resilience, January 31, 2018

S T A T U S : C O M P L E T E D

Team Flourish



The Becoming: What Am I Good At?

APPENDIX B: PROGRAM TEAM COMPOSITION

UTSC Executive Administration

Bruce Kidd, Vice President & Principal

Desmond Pouyat, Dean - Students

UTSC Stakeholders/Directors

Academic Advising & Career Centre, Access*Ability* Services

Athletics & Recreation, Health & Wellness Centre

Office of the Registrar

Principal Investigator & Project Lead

Tayyab Rashid

Meets with and reports once per term to
UTSC Executive Administration

Meets with and reports monthly to UTSC Stakeholder Group

Liaises with and leads as needed meetings with Community Partners

Liaises with and leads as needed meetings with Community Partners

Shoniker Clinic - Rouge Valley Health System (SC-RVHS)

Toronto District School Board (TDSB)

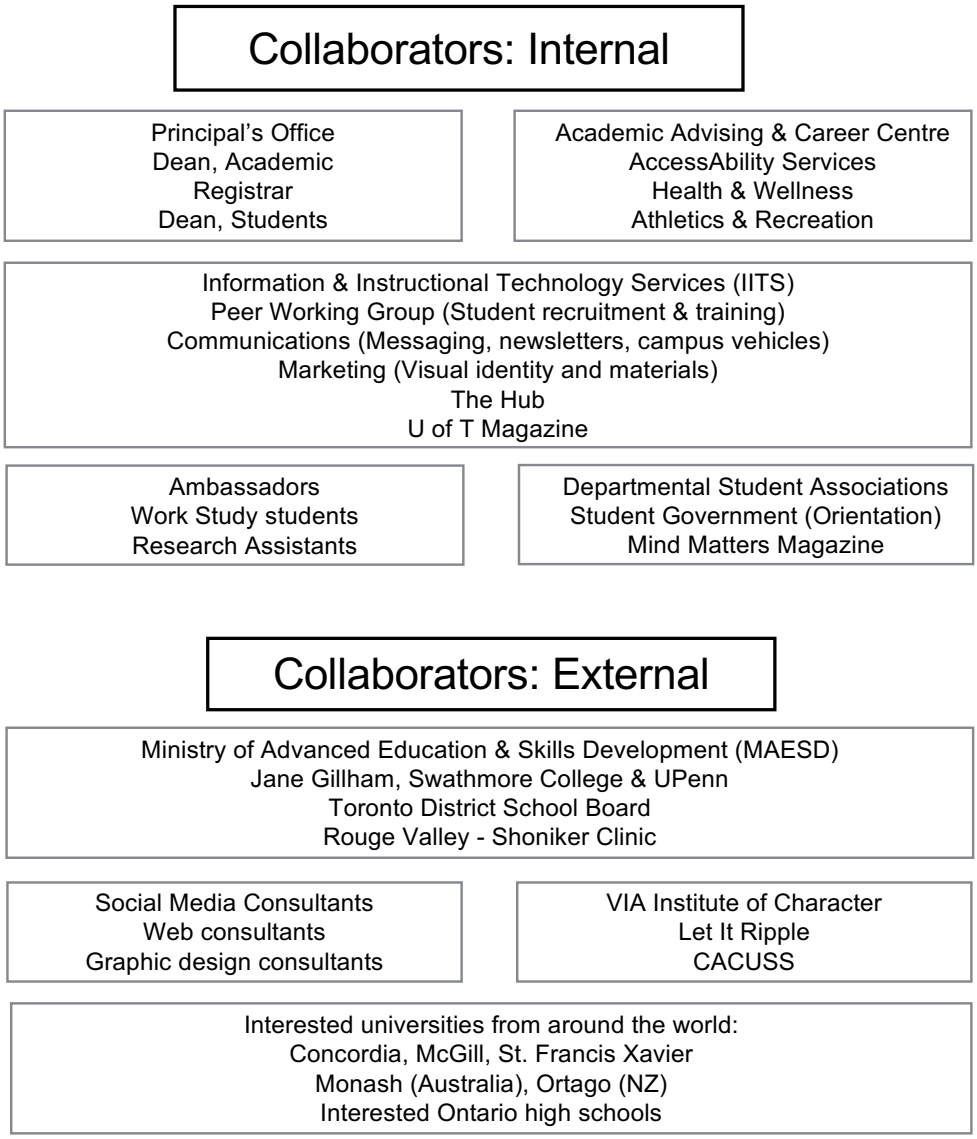
Core Team
meets weekly
AA&CC Rep
Athletics Rep
Project Coordinator

UTSC IITS
Meets Bi-Weekly

APPENDIX C: COLLABORATORS

Our project deliverables have been made possible by extensive collaboration with players inside UTSC and outside in the community. Our many collaborations during the grant have enabled us to:

- Bring a whole-student approach to our programming, enriching it through the diversity of perspectives on the emotional, physical and academic well-being of the student.
- Capitalize on the expertise of researchers to explore important questions about resilience and well-being from a base of evidence.
- Leverage technology to develop web-based assessment tools and on-line learning modules for trainers and students.
- Increase our productivity in creating legacy outcomes for post-secondary colleagues in Ontario and beyond.
- Ensure sustainability of the program through the development of a peer-to-peer learning model and accessible train-the-trainer resources.



APPENDIX D: FLOURISH PROGRAMMING AT UTSC MARCH 2015-JUNE 2017

Event Name Organized by time of year	Attendees	Outcomes
Coach Training for Get Started **May 2016** **June 2017**	 27 30	• Ran a workshop on the Flourish program and the strength of self-compassion for orientation program student coaches • Students trained are better able to refer incoming students to the program during UTSC's Academic Orientation: Get Started
Get Started **2015** **2016** **2017**	Approximately 2000 2000 2000	• Distributed postcard to introduce the program during high school to university transition program held from mid-June to mid-July • Promoted Flourish assessment as a transition resource for students during daily luncheon or through programming content
General Orientation **August 2015** **August 2016**	 800 900	• Co-created with student peer ambassadors and ran three 45-minute sessions with incoming first-year students exploring strengths with first-year students (2015) • Staffed booth to acquaint students with Flourish program (2016)
Access*Ability* Orientation **August 2015** **August 2016**	 19 14	• Introduced students to mental health supports and SBR program
Understanding your Flourish Profile **September 11, 2015**	~10	• Conducted 2-hour workshop explaining the Flourish program, walking students through their profile and sharing resources on website with students directly
Character Day **September 18, 2015** **September 22, 2016**	 20 40	• Hosted half-day event in collaboration with a U.S. NGO *Let it Ripple* a global community partnership (~5000 institutions worldwide participate in Character Day) • Engaged students in experiential art activities and isolated five main stressors faced in transition to University • Student programming initiatives as a result of Character Day are ongoing, including a student documentary series
Mental Health Understood Fair **October 2015**	250	• Engaged with UTSC students to encourage assessment at event to reduce stigma of mental health
The Becoming **October 16, 2015** **February 18, 2016** **October 20, 2016** **February 17, 2017**	 12 13 18 36	• Hosted full-day workshop for students to build leadership skills through strengths • Trained students directly in well-being and character strengths • Students attending this event were invited to join Ambassador program

APPENDIX D: FLOURISH PROGRAMMING AT UTSC MARCH 2015-JUNE 2017 (Continued)

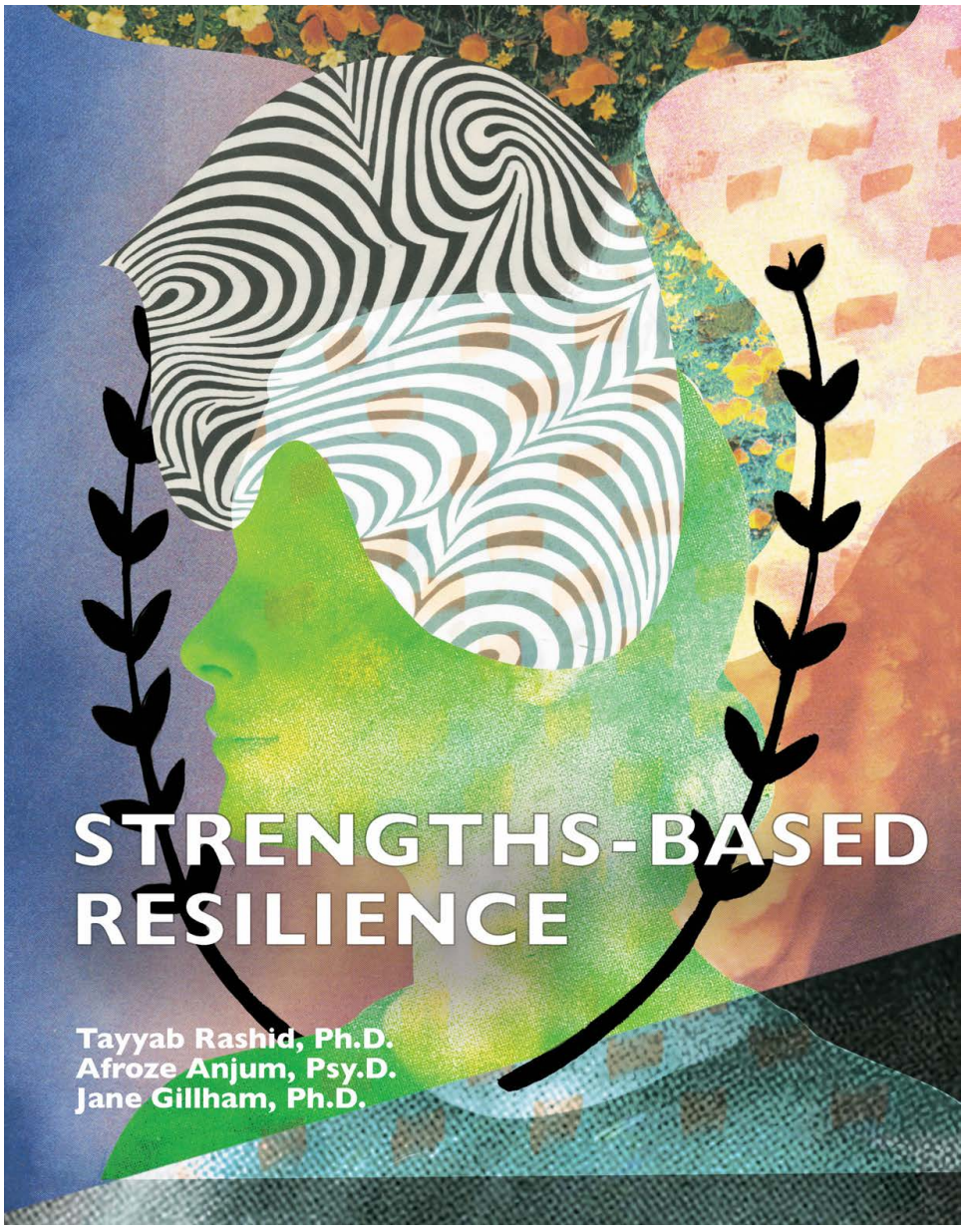
Event Name Organized by time of year	Attendees	Outcomes
New Year, New You **January 2016** **January 2017**	45 52	• Engaged in a student life partnership that helped attract students to the Flourish program • Delivered 1-hour presentation on habit building and goal-setting to first-year students participating in UTSC's Department of Student Life's First Year Experience program • Shared activities and knowledge with first-year students on goal-setting and positive habit building
First Generation Conference **January 2016** **January 2017**	45 82	• Delivered 1-hour presentation at a tri-campus First Generation Student conference • Directly engaged an underserved group of students from other campuses
Wellness Fair **January 2016** **January 2017**	300 300	• Engaged students in strengths-based activities at booth • Handed out Flourish information material to encourage assessment and direct to website
Stories Worth Sharing **March/April 2017**	37	Students led series of workshops to invite students to express through a brief narrative how they use their strengths
Miscellaneous classroom presentations throughout year	1200	Participated in classroom presentations to introduce students to Flourish

APPENDIX E: STRENGTHS-BASED RESILIENCE (SBR) TRAINER MANUAL & ONLINE RESOURCE

SBR is a 14-session structured, strengths-based resilience training program. The program has produced a 287-page manual.

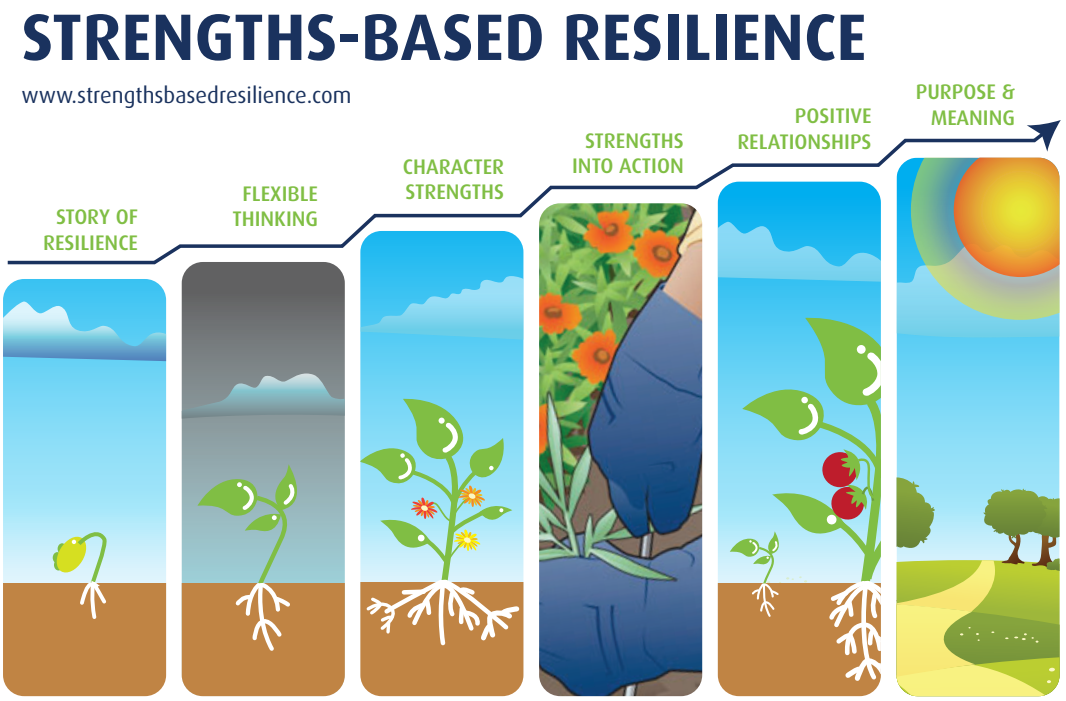
The revised 14-chapter SBR manual has been restructured to ensure a combination of required structure and flexible tailoring to the audience. The first seven topics are core, as they provide fundamental background and theory. The remaining 7 are applied and can be used selectively depending on the needs of the group.

To support trainers, we have also created a companion website organized by lesson and accessible by all those who have undergone SBR training. To view this site, visit:
www.strengthsbasedresilience.com



APPENDIX F: SBR LESSON PLAN STRUCTURE & OVERVIEW OF 14 LESSONS

The infographic below illustrates the SBR training program's six main themes.



The preamble to the manual includes background research, training guidelines, an overview of learning outcomes by lesson, as well as handouts for ensuring two regular activities throughout the program:

1. **Relaxation & Mindfulness:** Instructors choose from five 5-minute exercises to begin each session.
2. **Gratitude Journal:** Instructors introduce journaling at the beginning of the program; the handout enables students to capture three positive events or experiences daily.

The lesson in each chapter follows a consistent structure as described below.

	Component	Duration
1	Set up & greetings	5 minutes
2	Opening relaxation practice	5 minutes
3	Core concepts	10 minutes
4	Video illustration of core concepts	5 minutes
5	Discussion	5 minutes
6	Practice	10 minutes
7	Practice debrief	5 minutes
8	Everyday implications	5 minutes
9	Closing relaxation	5 minutes
10	Q & A	5 minutes

SBR Manual Overview

The SBR Manual contains 14 lessons, the first 7 being core lessons all programs should include. The remaining 8 topics allow trainers to choose specific applied skills to teach.

	Lesson Theme	Description
1	Story of resilience	Narrating a story of overcoming challenges to create a sense of mastery from one's own life events
2	Fixed & growth mindset	Perceiving challenges and set-backs as temporary versus stable, understanding that intelligence is not fixed
3	Cognitive accuracy	Unpacking challenging thoughts and reactions to explore underlying beliefs
4	Cognitive flexibility	Exploring one's habitual style of solving problems and finding ways to solve problems by developing a flexible mind and approach
5	Character strengths	Discerning character strengths as positive traits that enable us to foster resilience and well-being
6	Signature strengths	Exploring character strengths through multiple sources to explore traits that come naturally to us and form the core of our personality
7	Problem solving	Learning to use one's strengths according to the situational relevance and fit, and knowing the skills to calibrate strengths accordingly
8	Grudge & gratitude	Exploring one's stubborn resentment toward another person and its impact; exploring gratitude as an expression of thankfulness—noticing and appreciating positive things in life
9	Empathy & perspective taking	Understanding others' emotions, thoughts, actions, and motives
10	Slowness & savouring	Discerning the cost of doing more things at a rapid pace and perfectly; Appreciating and experiencing senses, perceptions, thoughts, actions, through savouring activities such as basking, thanksgiving, luxuriating, marveling and mindfulness
11	Positive relationships	Understanding and acknowledging highest strengths of family members and loved ones, and gaining new and positive insights about them
12	Positive communication	Strengthening close relationships by a specific technique, Active-Constructive Responding, that is, offering validation and enthusiastic support when a partner shares positive news
13	Altruism	Understanding that altruism involves significant effort on the part of the helper with no obvious benefits, yet altruistic behaviour is associated with love, gratitude, zest and longevity
14	Meaning & purpose	Comprehending that having meaning in life is good for our mental health, and promotes good beyond self

APPENDIX G: SBR PRE-, POST, AND FOLLOW-UP OUTCOME DATA

Table G1

SBR at UTSC: Pre-, Post-Intervention, and Follow-Up Scores on Stress (Figure 3.4)

	Comparison		SBR			
	N	*Mean*	*S.E*	N	*df*	*t*
Pre	20	91.1 (4.0)	58	83.1 (3.0)	76	1.28
Post	**16**	**88.1 (5.7)**	**42**	**70.1 (4.0)**	**30**	**2.59***
6-month follow-up	8	82.2 (6.5)	11	73.64 (5.8)	16	0.98
12-month follow-up	**12**	**93.3 (7.3)**	**19**	**67.0 (6.6)**	**26**	**2.67***

*Note: *Bolded numbers represent statisically significant differences at p <.05, explored through independent sample t-tests*

Table G2

SBR at UTSC: Pre-, Post-Intervention, and Follow-Up Scores on Well-being (Figure 3.5)

	Comparison		SBR			
	N	*Mean*	*S.E*	N	*df*	*t*
Pre	20	84.4 (4.3)	58	85.29 (1.9)	76	-0.2
Post	**15**	**85 (4.6)**	**45**	**94 (2.2)**	**58**	**2.1***
6-month follow-up	11	82.1 (5.4)	7	92.3 (6.2)	16	1.0
12-month follow-up	**11**	**85.09 (5.4)**	**19**	**99.7 (4.0)**	**28**	**2.2***

*Note: *Bolded numbers represent statisically significant differences at p <.05, explored through independent sample t-tests*

Table G3

SBR at UTSC: Pre-, Post-Intervention, and Follow-Up Scores on Student Engagement (Figure 3.6)

	Comparison		SBR			
	N	*Mean*	*S.E*	N	*df*	*t*
Pre	19	129.6 (5.7)	19	129.6 (5.7)	65	1.6
Post	16	134.4 (6.4)	42	129.5 (3.6)	60	0.2
6-month follow-up	10	122.7 (5.5)	7	126.1 (7.7)	16	0.3
12-month follow-up	11	130 (7.4)	17	140.6 (6.1)	22	0.2

*Note. *Group differences explored through independent sample t-test*

Table G4

SBR at UTSC: Pre-, Post-Intervention, and Follow-Up Scores on Stigma (Figure 3.7)

	Comparison		SBR			
	N	*M (S.E)*	*N*	*M (S.E)*	*df*	*t*
Pre	19	77.9 (3.4)	57	72.8 (3.0)	48	1.1
Post	16	76.8 (4.0)	42	70.3 (3.1)	56	1.9
6-month follow-up	7	76 (3.3)	7	76.3 (5.8)	12	0.0
12-month follow-up	**11**	**82.8 (4.0)**	**18**	**68.2 (3.0)**	**27**	**2.9***

*Note. *Bolded numbers represent statistically significant differences at p <.05*

Table G5

SBR at UTSC: Pre-, Post-Intervention, and Follow-Up Scores on Resilience (Figure 3.8)

	Comparison			SBR			
	N	*Mean*	*S.E*	*N*	*Mean*	*df*	*t*
Pre	20	62.1 (4.7)	58	59.1 (1.9)	1.9	76	0.7
Post	16	63.5 (5.3)	42	67.2 (2.4)	2.4	56	0.2
6-month follow-up	7	59 (5.1)	8	67.2 (3.2)	3.2	13	1.4
12-month follow-up	**12**	**60.4 (3.9)**	**18**	**73.2 (3.2)**	**3.2**	**28**	**2.5***

*Note. *Bolded numbers represent statistically significant differences at p <.05, explored through independent sample t-test*

Table G6

SBR: Mind & Body Version: Pre-Post-Intervention and Follow-up Scores on Stress, Well-being, Resilience, Student Engagement, Physical Activity & Fatigue (Figure 3.9)

	Exercise (n=7)				Mind & Body (n=7)			
	Pre	Post	F/U	Sig	Pre	Post	F/U	Sig
	M (S.E)	M (S.E)	M (S.E)	t (6)	M (S.E)	M (S.E)	M (S.E)	t (6)
Stress (OQ-45)	65.3 (11.5)	69.9 (11.5)	68.8 (18.6)	-0.92	**64.14 (6.4)**	**54.6 (7.2)**	**58 (4.4)**	**3.5***
Well-being (FI)	93.7 (6.1)	99 (4.9)	92 (9.4)	-2.28	**90.3 (4.1)**	**96.7 (3.9)**	93 (5.1)	**3.3***
Student Engagement (SEI)	151.7 (5.5)	145.1 (4.2)	154.5 (7.7)	1.32	143.9 (6.5)	144.1 (5.7)	143.7 (6.2)	0.1
Resilience (CD-RISC)	67.7 (4.5)	67.1 (4.2)	65 (9.7)	-1.06	**68 (4.5)**	**72.3 (3.3)**	**71.7 (9.3)**	**3.1***
Physical Activity (PALMS)	139.3 (10.5)	150.1 (5.5)	131 (7.4)	-1.28	155.2 (6.4)	155.3 (4.1)	146 (9.6)	2.0
Fatigue (BFI)	38.1 (7.1)	43.4 (4.9)	31.2 (5.3)	-0.86	38.2 (6.3)	44.2 (4.5)	33.3 (6.4)	1.4

*Note. *Bolded numbers represent statistically significant differences from pre-to post-intervention, the post-intervention point, with p <.05; M=Mean; S.E=Standard Error; F/U=Follow-Up*

Table G7

Strengths-Based Resilience at RVHS: Pre, Post-intervention, and Follow-up Scores on Stress, Well-being, Social Skills, Resilience and Stigma (Figure 3.11)

	Comparison (n=13)			SBR (n=28)					
	Pre	Post	F/U	Pre	Post	F/U			Eta-squared
	M (S.E)	M (S.E)	M (S.E)	M (S.E)	M (S.E)	M (S.E)	F (1,32)	Sig	(η2)
Stress (OQY)	**87.6 (6.4)**	**80.5 (8.0)**	**89.8 (9.4)**	**92.4 (4.8)**	**66.8 (3.3)**	**83.5 (5.1)**	**7.7**	**0.0**	**0.0**
Wellbeing (FIY)	104.4 (4.0)	117.4 (5.1)	112 (3.8)	102.0 (3.8)	113.0 (3.9)	112.8 (6.5)	0.0	0.9	0.0
Social Skills (SS)	129 (5.5)	138.9 (3.6)	137.5 (7.3)	119 (5.5)	135.2 (3.6)	143.1 (5.9)	0.9	0.3	0.0
Resilience (CD-RISC)	**51.9 (4.2)**	**61.4 (4.0)**	**60.5 (6.0)**	**51.3 (4.0)**	**70.96 (3.3)**	**65.3 (4.9)**	**4.2**	**0.0**	**0.1**
Stigma (SS)	88.7 (5.9)	81.1 (4.9)	79.1 (5.6)	79.1 (4.3)	70.96 (4.8)	72.5 (7.0)	0.6	0.4	0.0

Note. Bolded numbers represent significant differences at p <.05 between two groups, controlling for pre-pregroup differences; M=Mean; S.E= Standard Error; F/U=Follow-Up

Table G8

Strengths-Based Resilience at TDSB: Pre- and Post-Intervention Scores on Stress, Well-being, Social Skills, Resilience and Problem Behaviour (Figure 3.12)

	Comparison (n = 40)		SBR (n = 77)			
	Pre	*Post*	*Pre*	Post	*F (1, 114)*	eta sq (η2)
	M (S.E)	*M (S.E)*	*M (S.E)*	M (S.E)		
Stress (OQ-Y)	**52.6 (5.6)**	**61.7 (5.5)**	**43.5 (2.9)**	**42.4 (3.1)**	**8.47****	**0.16**
Well-being (FI-Y)	**126.5(3.5)**	**121.9 (3.0)**	**131.4 (1.8)**	**136.3 (1.9)**	**2.60***	**0.05**
Social Skills (SSIS)	126.9 (4.4)	125.2 (5.2)	129.6 (3.1)	134.1 (3.2)	1.6	0.03
Resilience (CD-RISC)	**85.1 (4.8)**	**81.2 (4.7)**	**89.7 (3.4)**	**92.9 (3.7)**	**2.67***	**0.05**
Problem Behaviour (SSIS)	**45.5 (2.3)**	**41 (2.4)**	**46.2 (3.4)**	**45.5 (3.2)**	**10.24****	**0.05**

Note. Bolded numbers represent significant differences at p <.05 between two groups, controlling for pre-pregroup differences; M=Mean; S.E= Standard Error

Table G9

Strengths-Based Resilience at TDSB: Six-Month Follow-Up Scores on Stress, Well-being, Social Skills and Resilience (Figure 3.13)

	Comparison (n=10)	SBR (n=22)	
	M (S.E)	M (S.E)	*t (df, 30)*
Stress (OQY)	75.7 (8.0)	66.6 (6.9)	0.79
Well-being (FIY)	125.7 (5.3)	129.9 (4.1)	0.59
Social Skills (SSIS)	132.6 (6.1)	141.5 (4.4)	0.83
Resilience (CD-RISC)	**82.1 (4.7)**	**92.6 (2.5)**	**2.2***

*Note. *Bolded numbers represent statistically significant differences at the six-month follow-up at p <.05*

APPENDIX H: PUBLICATIONS, SPEAKER EVENTS & SPECIAL RECOGNITION

Publications

Rashid, T., Louden, R., Wright, L., Chu, R., Lutchmie-Maharaj A., Hakim, I., Uy, D. A. Kidd, B. (2017). *Flourish: A Strengths-Based Approach to Building Student Resilience*. In Proctor, C. (Ed.). Positive *Psychology Interventions in Practice*. pp. 29—45. The Netherlands: Springer.

Rashid, T. Howes, R., & Louden, R. (2017). *Positive Psychotherapy*. In M. Slad, L. Oades, A. Jarden (eds). *Wellbeing, recovery and mental health.* Cambridge: Cambridge University Press.

Distinguished Guests Invited Through Grant Funding

Dr. Denise Quinlan: *Spotting Strengths in Others*, July 2017
Dr. Jane Gillham: *Bring out the Best in our Students*, December 2016
Unaiza Karim:*Expressing Strengths Through Art*, Character Day, September 2016
Louisa Jewell: Self-Confidence, February 2016
Dr. Steve Joordens: *Well-being and Creativity*, Character Day, September 2015
Dr. Alex Wood: *What is Happiness and What Determines It*, February 2015

Special Recognition for Strengths-Based Resilience Program

Listed as the top illustrative resilience program by Harvard's Resilience Consortium, 2017
https://resilienceconsortium.bsc.harvard.edu/programs

Innovation Program Award in Student Services across Canada from the Canadian Association of College & University Student Services (CACUSS), June 2018

Guest Lecturer Jane Gillham on Bringing out the Best