Singapore Youth Resilience Survey: Examining the stressors, risks and resilience of Young People

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BEYOND
social services

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C O N T E N T S

Abstract

Beyond Social Services recently completed a survey on the resiliency of young people in Singapore. It examines resiliency through protective internal factors, such as the sense of Belonging, Mastery, Independence and Generosity based on the Circle of Courage (Brendtro, et al., 1990) as well as external factors such as willingness towards at risk activities due to peer pressure and other stress factors.

The Singapore Youth Resilience Survey was conducted in 5 local secondary schools from early 2010 to mid 2011. According to the Ministry of Education's School Achievement 2010, 3 of the schools are from the band 9 and below, while the other 2 schools are from band one and above. The data was obtained from a sample of 1,941 Secondary School students through self-administered questionnaires.

Survey findings found links between the resilience, stress factors, emotions at home, willingness to try at-risk behaviors and social skills. It also emphasised the need to foster greater resiliency amongst early adolescent teenagers, in order to help them cope with the stressors of their environment. This would not only reduce their vulnerability towards at-risk activities, but also provide emotional well-being critical to this stage of development.

Background Information

Youth in Singapore has been generally fortunate to be able to grow up in a country that has a relatively high standard of living. In a United Nation's observation and report, it was noted that Singapore's children and youth have access to widely available sources of quality education, housing and health opportunities (UNCRC 2003).

However, recently media reports on youth behaviour in Singapore have captured the attention of not only professionals working with youth but the public as well. Recent examples include increased levels of public violence, under-aged sex and adolescent suicide reported by local media, the Singapore Police Force as well as Ministry of Community Development, Youth and Sports.

Such increasing reports of youth behaviour are common not only in Singapore but also in developed countries such as the United States and United Kingdom. While it is imperative to recognise and reduce such behaviours, the unfortunate side-effect is that we tend to blame youth for their failure in education or development; an effect that does little to encourage or build trust with youth that are acting out and feeling inadequate in this system.

"Because policy tends to blame young people for their own
circumstances, it can thus focus on reducing 'push' factors
rather than offering 'pull' factors"
-        M. Barry, Youth Policy and Social Inclusion (2005)

Early deficit model of adolescent development generally recognized this period as characterized by problems to be dealt with and as such, research was focused primarily on health risk behaviours and predictors of risk behaviours. This model resulted in subsequent prevention and intervention programs, which were often later evaluated to have limited effectiveness. Examples of such programs include the D.A.R.E (Drug Abuse Resistant Education) program in the U.S. Studies by U.S Surgeon General, Department of Education and several other government bodies have concluded that the program is ineffective in stopping teens from using drugs and other illegal substances.

Structure, discipline and carrot-and-stick approaches remain an essential part of the normative youth engagement that does well to promote fairness and consistency in the message that as adults, we would like youth to receive. However, in Singapore's modern environment which is highly competitive for youth and holds a unique blend of stressors, there will always be those who feel discouraged and out of place. These youth are neither good nor bad, they are at-risk.

In the 1970s, Emmy Werner studied a cohort of children longitudinally in Kauai, Hawaii that grew up with mentally ill or alcoholic parents. Two-thirds exhibited destructive behavior such as chronic unemployment and substance abuse. However, one-thirds appeared to have traits or ecological supports that kept them from exhibiting such destructive behaviours. This latter group was thus deemed "resilient". Werner (1995) groups these factors into three large components.

(1) Personal attributes, including outgoing, bright and positive self-concept
(2) The family, such as having close bonds with at least one family member or an emotionally stable parent; and
(3) The community, such as receiving support of counsel from peers

The provision of opportunities to build the capacities of youths creates internal protective factors such as problem solving skills and emotional control. As most modern theories of positive youth

development reflect, internal factors are only one side of the coin. Developing support through stable relational bonds with family and friends forms external protective factors along with inculcating social skills and a socially-driven conscience.

Subsequently, in the early 1990s, a new vision and vocabulary for discussing young people has emerged predicated by advances in the fields of comparative and developmental psychology. This research pointed out the potential plasticity arising out of the mutually influential relations between biological, individual and contextual levels of organisation within the ecology of the youth. The underlying principles of positive youth development were thus founded upon providing the opportunities to build skills, interests and abilities for the growth of a youth's competence, confidence and character. In addition, there is greater emphasis on the role of families, friends, schools and communities in supporting, and not undermining, the development of the youth. The values of caring and contribution can only be inculcated by example through the reciprocity of those closest to the youth.

The positive youth development movement, which arguably emerged from research in resiliency, began creating programs tailored to address the broad developmental needs of all youth. It sought to provide young people with the supports they need to be successful in a lifetime of facing challenges, rather than coaching them on how to avoid or overcome a single problem.

Research has consistently shown that the presence of these protective factors provide a better indicator of whether youth will grow up to become successful, well-adjusted adults than does the presence or absence of risk factors. By providing children and youth with caring relationships and opportunities for successful participation in society, these approaches fulfil the needs of children and youth that benefit them throughout their lives, creating a longer term effect on indicators of success that overcasts the risks of identified deficits. Research has also indicated that the resilience of a youth is directly related to positive outcomes such as academic achievement as well as a greater ability to adapt successfully in the face of adversity or risk factors in his or her environment without succumbing to emotional or behavioural problems that accompany stress or trauma.

Decades of research in resiliency and positive youth development point to a number of factors that have powerful influences on healthy youth development. The Circle of Courage (CoC) pulls together these factors from multiple sources of evidence-based research. Base on cross-cultural research on universal human needs by psychologist Larry Brendtro, Native American anthropologist Martin Brokenleg, and education professor Steve Van Bockern (1990, 2002). The Circle of Courage synthesises positive psychology and practices expertise including the indigenous principles and expertise of child-rearing and education. It posits four universal growth needs which apply to children and youth in diverse cultural settings world-wide: Belonging, Mastery, Independence, and Generosity. Table 1 highlights the evidence base supporting these four growth needs as drawn from key resilience studies (Brendtro & Larson, 2006).

Table 1: The Circle of Courage: Evidence Base in Resilience Research

Belonging: Developing Attachment
• Social competence (1)
• A network of friends, a community where one is respected, humor. (2)
• Caring family; if parents are absent, extended family, siblings, and other adults provide counsel, safety, and support; participation in school and community programs. (3)
• Relationships, humor, intimate and fulfilling ties to others. (4)

Mastery: Developing Achievement
• Problem solving (1)
• Creativity, open-minded, receptive to new ideas, range of interests, recognizes gifts and talents, willing to dream, creative solutions, redefines problems to find solutions. (2)
• High expectations, academic success, communication skills. (3)
• Insight, initiative, creativity, takes on demanding tasks, asks tough questions, gives honest answers, brings order and purpose to chaos. (4)

Independence: Developing Autonomy
• Autonomy (1)
• Independence of thought and action, personal discipline and responsibility, insight into feelings, tolerance of distress, distances from destructive relationships. (2)
• Personal efficacy, control over one's environment. (3)
• Independence, keeps boundaries and emotional distance from troubled persons, initiative, takes charge of problems, exerts control. (4)

Generosity: Developing Altruism
• Sense of purpose. (1)
• Commitment, hope, faith, purpose, understands feelings of others, a sense of destiny. (2)
• Empathy, caring, productive roles in family and community. (3)
• Empathy, capacity to give, morality with an informed conscience, values decency, compassion, honesty, fair play, responds to needs and suffering of others. (4)

Resilience Research Citations:
(1) Benard, B. (2004). Resiliency: What We Have Learned.
(2) Flach, F. (1989). Resilience: Discovering a New Strength at Times of Stress.
(3) Werner, E., & Smith, R. (1992) .Overcoming the Odds: High Risk Children from Birth to Adulthood.
(4) Wolin, S., & Wolin, S. (1993). The Resilient Self: How Survivors of Troubled Families Rise above Adversity.

These needs parallel the four foundations of self-worth as established in early research by Stanley Coopersmith (1967) and recovered writings of Abraham Maslow which update his hierarchy of human needs (Koltko-Rivera, 2006). Respectively, these four domains foster attributes that increase a youth's resiliency through character building:

• Attachment provides safety, significance, and belonging.

• Achievement brings knowledge, competence, and esteem.

• Autonomy builds efficacy, power, and self actualization.

• Altruism fosters morality, virtue, and self-transcendence.

Introduction

This project aims to analyse the resilience of youths in the Singapore schooling system based on the Circle of Courage model. By measuring a baseline on how youths perform on indicators of resiliency, stress, feelings and responses to at-risk behaviours; this research hopes to suggest implications for practice, to better serve the needs of Singaporean youths.

The questionnaire seeks to measure and answer these four questions:

1. What are the stressors Singaporean youth face (Stressors)?
2. What are the personal and ecological strengths they possess to deal with stress (Resilience)?
3. Do they cope well at home and at school (Feelings)?
4. What are the behaviours that youth might try under peer pressure (At-risk behaviours)?
5. Do youth have the necessary social skills to handle sensitive scenarios that arise (Social skills)?

The first level of analysis that is of interest to this study is a comparison of these scores across demographic groups in Singaporean youth. The differences in age, culture, education, and socio-economic factors hints at the possible factors that contribute to varying score levels, prompting further avenues for research in investigating why a particular group should score higher or lower than the others. This in turn could help to shape practice in a culturally relevant manner.

Additionally, this level of analysis will aid the theory of resiliency in Singapore by identifying which demographic factors create large effects on the scores mentioned above. The valuable discussion of which would shape our knowledge of whether measures such as stress and resiliency are linked more strongly with biological growth factors, or environmental factors, offering a more targeted strategy in the implementation of suggested interventions.

The second level of analysis explores the links between the different constructs.
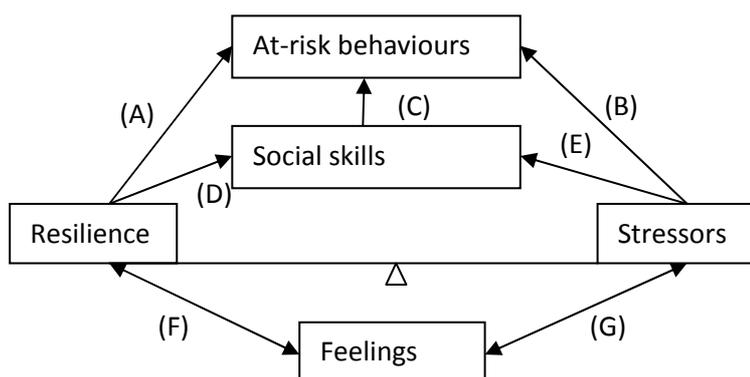
Resiliency describes the ability of youths to successfully adapt to risk factors in their lives that could potentially lead to destructive behaviours. However, the domain of risk factors is very broad and encompasses factors ranging from genetic predispositions to perceptions of approval to substance abuse in society at large. For our purposes in dissecting the perceived experiences of school-going youths in Singapore, we narrowed our focus on the generic stressors in school and at home that youths might be going through.

(A) We hypothesise that stressors at school and at home are more positively correlated to at-risk behaviours.

(B) We hypothesise that resilience is negatively correlated to trying at-risk behaviours.

Because the peer group is one of the largest ecological influences on youth, we are also interested in an additional factor linked with resilience, namely, the social and communications skills of the youth. Aldinger and Whitman (2003) noted that communications and interpersonal skills, especially in terms of negotiation and refusal, played a protective role in substance abuse and other risk taking behavior. Benard (1991) further identified communication skills as one of the social competency skills that forms the attributes of a resilient survivor and should be developed in youth. Aside from greater reports of well-being and life satisfaction, social skills and communication skills seems to result in a reduction of perceptions of stress. As such,

(C) We hypothesise that social skills in difficult social scenarios would be negatively correlated to at-risk behaviours.

(D) We hypothesise that resilience should be positively correlated to greater communication and social skills.

(E) We hypothesise that social skills should be negatively correlated with reported stressors

The association between resilience and emotion has recently been the subject of research. Frederickson et al. (2003) suggests that positive emotions are an active element of resilience, while other have suggested that even humour as a form of emotional intelligence is a factor contributing to resilience (Benard, 1991; Rahe and Geneder, 1983). Being able to see things positively and humourously allows for a sense of control to what seems otherwise an uncontrollable situation, alleviating stress.

(F) We hypothesise that resiliency is positively correlated with emotions in school and at home.

(G) We hypothesise that stress is negatively correlated with emotions in school and at home.

Methodology

A total of 1,941 secondary school students were surveyed through self-administered questionnaires. The study was conducted in 5 local secondary schools from early 2010 to mid 2011. According the Ministry of Education's School Achievement 2010 (http://www.moe.gov.sg/media/press/files/2010/moa-annex-e1.pdf), 3 of the schools were from band 9 and below, while the other 2 schools were from band one and above. The data was obtained from a sample of 1,941 Secondary School students through self-administered questionnaires, with the assistance of teachers and Head of departments who were able to conduct the survey mostly during lesson time. According to MOE's Education Statistics Digest 2010, the sample of 1941 represents almost a percent (0.97%) of the total enrolment figure of local secondary school students in 2009.

Target population:

The survey aimed to give an insight into the current state of youth aged between 13-19 years in Singapore by comparing across demographics of youth from different socio-economic and schooling backgrounds. In order to obtain such an inclusive and representative sample, local public schools were considered as the best platform to achieve this goal.

Sampling Method:

The survey utilised stratified cluster sampling, where each cluster sample was represented by a single school which also consists of a small scale representation of the population. The aim was to obtain a representative sample from both neighbourhood schools as well as upper band schools. In addition, from each school cluster sample, data from the various streams (Normal Academic, Normal Technical and Express) as well as different educational levels (Sec 1-Sec 5) were obtained to give a more representative sample. However, do note that the Band 1 schools and above did not have either the Normal Academic or Normal Technical Stream.

School Type	Sample (N)	%	Comparison to National enrolment in Sec school (Eduation Statistics Digest 2010)	% of National Statistic
Band 9 and below schools (3 schools)	1790	93	-	-
Band 1 and above schools (2 schools)	151	7	-	-
Total	1,941	100	199,409	0.97

		total		Comparison with National enrolment in Sec School	
		N	%	N	%
School Stream	0 prefer not to say	7	0%	-	-
	1 Normal Academic	618	32%	91,581	28.4
	2 Normal	428	22%	36,259	11.3

	Technical				
	3 Express/Special	888	45%	194,016	60.3
	Total	1,941	100%	321,856	100
Year of schooling	0 prefer not to say	4	0%	-	-
	1 Secondary 1	611	31%	50083	23.0
	2 Secondary 2	476	25%	51043	23.5
	3 Secondary 3	500	26%	54440	25.1
	4 Secondary 4	313	16%	52186	24.0
	5 Secondary 5	37	2%	9478	4.4
	Total	1,941	100%	217230	100

A core challenge in obtaining the sample was that upper band schools were generally more reluctant than lower band schools to participate in the survey. A key reason cited was survey fatigue as many of upper band school students already had to participate in a wide range of other surveys. It was also noted that a working relationship with the school made it significantly easier for a Voluntary Welfare Organisation to obtain survey participation as opposed to schools where we had little or no working relationship with.

Questionnaire Design:

The questionnaire was designed to be anonymous so as to give the respondent a sense of privacy and also to elicit more truthful responses. Thus the questionnaire did not ask for name, I.C/student number or any form of identifier. All questions were close ended, so as to facilitate straightforward statistical analysis and comparison of responses as well as reduce researcher bias and misunderstanding (Babbie 1995).

Section 1: Consists of 8 closed ended multiple choice questions that ask for respondent demographics (e.g age, gender, educational background...)

Section 2: Consists of 40 likert scaling questions which represent indicators on the 4 quadrants of resilience based on the Circle of Courage. This section is inspired by the engagement instrument developed by Debbie Draper in 2006, Learning Band Coordinator of the Barossa District Office of Australia. For more information of Draper's work, please see http://www.decs.sa.gov.au/barossa/pages/Barossa/27910/?reFlag=1

Belonging	Q1-10
Mastery	Q11-20
Independence	Q21-30
Generosity	Q31-40

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
+2	+1	0	-1	-2

Section 3: Consists of 2 multiple choice questions asking the respondent about the main emotion they feel at home and at school, as a measure of how respondents cope in their major ecological

environments. Responses are coded into positive emotions (safe, loved, happy) and negative emotions(lonely, left out, nervous, stressed);

As well as a single multiple choice question about a range of at risk behaviour they would consider trying if their peers prompted them (e.g fighting, stealing, joining a gang, etc...)

Section 4: Consists of 4 multiple choice questions where a scenario was given and the respondent is prompted to choose how they would act in that given situation. This section aims to look at social skills in dealing with a variety of common youth settings and is based on the peer-individual protective factors: Social skills instrument which was used in the Washington State Healthy Youth Survey.

Scoring for the 4 scenario based questions are as follows:

The first question informs the respondent that they are browsing at a CD store with a friend, and she slips a CD under her jacket, while asking the respondent to do the same.

1st response "pretend didn't hear" 2 pts,

2nd response "OK but lets leave fast" 1 pt

3rd response "Dont be stupid. We'll get caught." 4 pts

4th response "im not gonna get involved" 3 pts

The second question informs the respondent that they are about to leave home to join their friends on a Friday evening. However, their mother remarks that they should stay home to finish their homework.

1st response, "leave the house" 1 pt,

2nd response, "explain" 4 pts

3rd response, "change plans stay home" 3 pts

4th response, "tell lie" 2 pts

The third question informs the respondent that they are walking in an unfamiliar part of Singapore when a teenager, the same size as the respondent walks towards and deliberately bumps into them

1st response, "start argument or fight", 1 pt

2nd response, "excuse me" 4 pts

3rd response, "watch where youre going" 3 pts

4th response, "swear at person" 2 pts

The fourth question informs the respondent that they are at a party when a friend offers them some pills, claiming it would make it more fun.

1st response, "Take pill" 1 pts

2nd response, "no thanks i dont do drugs" 4 pts

3rd response, "no thanks and tell adults" 2 pts

4th response, "make excuse and leave" 3 pts

Mode of Administration:

A letter explaining the purpose of the survey was sent to key partners, such as Principals, Head of Departments or Counsellors, in schools that Beyond Social Services worked with (please refer to Annex 3). Upon agreeing to participate, questionnaires were distributed amongst the 5 secondary schools and informed consent was sought (please refer to Annex 1 and 2). Teachers and Head of Departments assisted in the survey process by taking about a single class period (about 30-40 minutes) to collect data. Where convenient, researchers would be involved in the data collection process, observing and answering questions by the students before and after they answered the questionnaire, as well as explaining the rationale behind the survey and any other administrative details. With the assistance of volunteers, data from the written questionnaires were coded into a Microsoft excel sheet and analyzed using a SPSS programme.

General Demographics:

Gender			
	0 prefer not to say	8	0%
	1 Male	1,055	54%
	2 Female	878	45%
	Total	1,941	100%

The ratio of male respondents to female respondents was almost equal (1:1). There were slightly more males than females.

Age			
	0 prefer not to say	8	0%
	1 7 to 10 years	5	0%
	2 11 to 13 years	673	35%
	3 14 to 16 years	1,172	60%
	4 17 to 19 years	81	4%
	5 Over 20 years	2	0%
	Total	1,941	100%

The majority of respondents were from the age range of 11-16 years old. 60% of the respondents were in the 14-16 year age range.

Relationship Status			
	0 prefer not to say	32	2%
	1 Not in a relationship	1,662	86%
	2 Dating one person	134	7%
	3 Dating multiple people	54	3%
	4 In a committed relationship	47	2%
	5 Married	12	1%
	Total	1,941	100%

The majority of secondary students (86%) indicated that they were not in any boy-girl relationship. While this finding may be surprising to some, a study by Candice Fiering indicated that during the period of middle adolescence, most young people are in a casual state of dating in which durations of relationships lasts only a few brief months. In the same study, conducted in the United States, 90% of teens were found to have dated by 15 years of age, but only 21% were dating at the time when the survey was conducted (Fiering 1996)

In our study, the percentage of those dating tend to increase as students were promoted to a higher secondary level as can be seen by the table below. The largest percentage change seems to be from Sec 2 to Sec 3.

 This finding is consistent with Erik Erikson's 8 stages of life development, which informs us that during this period (secondary 2 and 3), a person would be in the middle of adolescence. This life stage is characterised by a transition from childhood to adulthood, where a young person seeks to develop a sense of identity or role in society. In the middle to later parts of adolescence, part of this sense of identity includes the need to develop knowledge of sexual roles and identity. Early romantic relationships are believed to play a central role in the development of self-identity and capacity for intimacy (Erikson 1968).

Secondary Level	(%) who indicated they were dating
Sec 1	8
Sec 2	9
Sec 3	16.3
Sec 4	21
Sec 5	25

		N	%	Comparison with National distribution
Ethnicity	0 Prefer not to say	17	1%	-
	1 Chinese	1,223	63%	74.1%
	2 Malay	440	23%	13.4%
	3 Indian	185	9%	9.2%
	4 Others	76	3%	3.3%
	Total	1,941	100%	100%

Religion			
	0 Prefer not to say	67	3%
	1 Buddhist	647	33%
	2 Christian	278	14%
	3 Taoist	37	2%
	4 Hindu	112	6%
	5 Muslim	488	25%
	6 Others	22	1%
	7 Free Thinker	246	13%
	8 Catholic	32	2%
	9 Sikh	5	0%
	13 Atheist	2	0%
	14 Mix	1	0%
	16 Don't know	4	0%
	Total	1,941	100%

		N	%	Comparison with National Distribution
Housing Type	0 Prefer not to say	38	2%	-
	1 Rented HDB flat	135	7%	82.4%
	2 Owned HDB flat	1,421	73%	
	3 Condominium	206	11%	11.2%
	4 Landed Property	91	5%	5.7%
	5 Others	50	2%	0.7%
	Total	1,941	100%	100%

The respondents' housing type distribution mirrors closely the data from Singapore Census 2010.

		N	%	Comparison with National Distribution
Household size	1.00 3 people and below	230	12%	51.2%
	2.00 4 people	538	29%	23%
	3.00 5 people	535	28%	14.7%
	4.00 more than 5 people	582	31%	11.4%

In looking at household size, the majority of our respondents indicated that they lived in a household with 4 people and above (88%), as compared to national data which shows that 74.2% of Singaporeans live in households of 4 people and below.

As our respondents are all school going teens, indicating that their parents have at least 1 child or more, it precludes families with no children, which the national census data would include.

Nationality	0 Prefer not to say	22	1%
	1 Singaporean	1,684	87%
	2 Permanent resident	147	8%
	3 Others	39	2%
	4 Malaysian	6	0%
	5 Chinese	19	1%
	6 Indonesian	4	0%
	7 Burmese	10	1%
	8 Korean	2	0%
	9 Thai	2	0%
	11 Bangladeshi	4	0%
	12 Filipino	2	0%
	Total	1,941	100%

The majority of the respondents indicated that they were Singaporean (87%) while a smaller proportion indicated that they were Permanent Residents (8%)

Findings

When considering the results and findings, it should be noted that the following do not actually indicate objective measurements of Belonging, Mastery, Independence and Generosity but self-reported indicators of the 4 domains of resilience. For example, scoring low on the indicator of being good at school work does not actually mean that a respondent's grades are bad in school but that they perceive their school achievement to be low.

On the 4 indicators of Resilience

Sense of Belonging:

	N	% who strongly agreed or agreed with the statement
I have enough friends	1,562	81%
I involve myself in activities (either in school or out of)	1,491	77%
I find it easy to fit in with others	1,366	71%
I often spend time with family	1,409	73%
I respect the elders in my life	1,663	86%
I can turn to family when in trouble	1,311	68%
My friends support me	1,492	77%
I feel that I am an important part of Singapore	1,096	57%
I enjoy going to school	1,276	66%
People at school generally like me	1,180	61%

Peer groups:

Respondents generally feel a sense of Belonging with their peer groups as can be seen by the relatively higher proportions who agree with the statements "I have enough friends" and "My friends support me" (81% and 77% respectively)

Family:

It may be interesting to note that most respondents indicated that they respect the elders in their lives (86%) and often spent time with their families (73%), however a smaller proportion indicated that they could turn to family when in trouble (68%)

School:

66% of respondents indicated that they enjoy going to school, while 61% indicated that people at school generally liked them.

Nation:

Only 57% of the respondents agreed with the statement "I feel that I am an important part of Singapore"

Comparisons between respondents in upper band schools and those in lower band schools:

In a 2 tailed probability test with a significance level of 0.05, we found significant results in the responses between respondents from upper band schools, in comparison to respondents from the lower bands schools.

Those in upper band schools generally:

a) Involved themselves more in activities (either in school or out of)
b) Indicated that they were better able to turn to family when in trouble
c) Indicated that their friends supported them more
d) Enjoyed going to school more
e) Indicated that people in their school generally liked them more

Comparisons across Educational Streams:

Using the same test as above, significant results were observed in the following:

a) Express students, in comparison to Normal Technical and Normal Academic students, were more likely to:
   i) Involve themselves in activities (either in school or out)
   ii) Find it easier to fit in with others
   iii) Often spend time with family
   iv) Turn to family when in trouble
   v) Indicate that their friends support them
   vi) Indicate that people at their school generally like them
b) Express students, in comparison to Normal Academic students, were more likely to indicate that they respect the elders in their lives.

Comparisons across the educational levels (i.e Sec 1 to Sec 5)

Lower Secondary (Sec 1 and 2) students, as compared to Upper Secondary (Sec 3 and 4), were more likely to:

   i) Fit in easier with others
   ii) Spend more time with family
   iii) Feel that they are an important part of Singapore
   iv) Enjoy going to school

Comparisons between genders

Female respondents were more likely than males to:

   i) Involve themselves in activities (in school and out)
   ii) Often spend time with their family
   iii) Respect the elders in their lives
   iv) Indicate that their friends support them
   v) Enjoy going to school

Comparisons across races

Malay and Indians were found to express a higher level of Belonging, as compared to the Chinese and Others.

Malay and Indians were more likely than Chinese and Others to:

    i)   Have enough friends
    ii)   Involved themselves in activities (in school and out)
    iii)   Find it easier to fit in with others
    iv)   Often spend time with family
    v)   Feel that they are an important part of Singapore
    vi)   Enjoy going to school

Comparisons across religion:

Respondents who subscribed to Islam and Hindu religions were more likely than those who subscribed to Christianity, Buddhism, Taoism and other religions to:

    i)   Feel that they are an important part of Singapore
    ii)   Enjoy going to school

Comparisons across housing types:

Respondents who lived in owned HDB flats were more likely to feel that they are an important part of Singapore, as compared to those who lived in condominiums.

Comparisons across Nationalities:

Singaporean Respondents were more likely than Permanent Residents or other nationalities to feel that they are an important part of Singapore.

Sense of Mastery

	N	% who strongly agreed or agreed with the statement
I am good at making new friends	1,206	62%
I am good at athletic activities (eg sports dance etc)	1,028	53%
I am good at artistic activities (eg music drawing etc)	912	47%
Adults care about the things I am good at	1,116	58%
I am good with nature	1,198	62%
I persist at a task even when it is difficult	1,188	61%
I have creative thoughts and ideas	1,180	61%
I think things through before acting	1,223	63%
I am pretty good at my school work	959	50%
I am good at being handy (fixing repairing and setting up of things)	941	49%

Respondents indicate a wide range of interests and masteries. The most common mastery expressed by respondents was the ability to think things through before acting (63%). This was followed by the ability to make new friends and being good with nature (62%), as well as persisting at tasks even when it is difficult and having creative thoughts and ideas (61%).

There were fewer respondents who expressed mastery at artistic activities (47%) or being handy (49%)

Comparisons between upper band schools and lower band schools

Upper band school respondents, as compared to lower band school respondents were more likely to:

    i)   Persist at tasks even when it is difficult
    ii)   Have creative thoughts and ideas
    iii)   Think things through before acting
    iv)   Be pretty good at school work

Comparisons across school streams

Normal Technical respondents, as compared to Normal Academic and Express respondents were more likely to:

    i)   Be good at athletic activities
    ii)   Be good at artistic activities
    iii)   Have adults who care about the things they are good at

Express respondents, as compared to Normal Academic respondents, were more likely to:

    i)   Think things through before acting
    ii)   Be pretty good at their school work

Comparisons across Secondary levels

Secondary 1 respondents, as compared to secondary 3 and 4 respondents, were more likely to:

i) Be good at artistic activities
ii) Have adults who care about the things they are good at
iii) Be good with nature
iv) Be pretty good at school work

Secondary 1 respondents were also more likely to persists at tasks even when they were difficult, as compared to Secondary 4 respondents.

Secondary 2 respondents were more likely than Secondary 4 respondents to:

i) Have adults who care about the things they are good at
ii) Be pretty good at their school work

Comparisons between genders

Male respondents were more likely, than female respondents to:

i) Be good at athletic activities
ii) Be good at being handy

Female respondents were more likely, than male respondents to:

i) Be good at artistic activities
ii) Think things through before acting

Comparisons across relationship statuses:

Respondents who were not in a relationship, as compared to respondents who were dating a single person, were more likely to persist at a task even when it is difficult.

Comparisons across ethnicities:

Malay and Indian respondents, as compared to Chinese respondents, tended to indicate a more positive self-concept of mastery as they were more likely to agree with all 10 indicators of mastery.

Comparisons across religion:

Hindu and Islamic respondents tended to indicate a more positive self-concept of mastery, as compared to the other major religions.

Hindu and Islamic respondents, as compared to other Buddhists, Taoists, Christians and other religious respondents, were more likely to:

i)   Be good at making new friends
ii)   Be good at athletic activities
iii)   Be good at artistic activities
iv)   Have adults who care about the things they are good at
v)   Have creative thoughts and ideas
vi)   Think things through before acting
vii)   Be pretty good at school work

<u>Comparison between housing types:</u>

Respondents who live in landed property, as compared to respondents who live in rented HDB, were more likely to be good at school work.

Sense of Independence

	total	
	1.00 all	
	N	%
I will happily try new things and dont mind if I make a mistake	1,372	71%
People trust me to do the right thing	1,306	68%
I am confident to tell someone politely if I dont like what they are doing	1,137	59%
I am in charge of my own behavior	1,558	81%
If something goes wrong I get over it pretty quickly	1,156	60%
I am confident that I can be successful	1,303	67%
I am a natural leader	867	45%
I am self-disciplined (able to control myself)	1,343	70%
I make good decisions	1,172	61%
I stay away from people who make trouble	1,294	68%

A larger proportion of respondents indicated that they were "in charge of their own behaviour" (81%), would happily try new things and not mind if they make a mistake (71%) as well as are self-disciplined and able to control themselves (70%)

Only 45% of respondents indicated that they were natural leaders and only 59% are confident to tell someone politely if they do not like what they are doing.

Comparisons between upper band schools and lower band schools

Upper band school respondents, as compared to lower band school respondents, were more likely to:

i)   Have people trust them to do the right thing
ii)   Be in charge of their own behaviour
iii)   Stay away from people who make trouble

Comparisons across school streams

Normal Technical respondents, as compared to Normal Academic respondents, were more likely to:

i)   Happily try new things and not mind if they make a mistake
ii)   Be confident that they could be successful
iii)   Make good decisions

Normal Technical respondents were more likely to be confident that they could be successful as compared to Express stream respondents.

Express respondents, as compared to Normal Academic respondents, were more likely to:

i)   Have people trust them to do the right thing
ii)   Be in charge of their own behaviour
iii)   Stay away from people who make trouble

Comparisons across Secondary levels

Secondary 1 respondents, as compared to Secondary 4 respondents, were more likely to:

i)   Be confident that they can be successful
ii)   Be a natural leader
iii)   Make good decisions
iv)   Stay away from people who make trouble

Secondary 1 respondents were also more likely to make good decisions and stay away from people who make trouble, as compared to Secondary 3 respondents.

Comparisons between genders

Male respondents, as compared to female respondents, were more likely to:

i)   Be confident that they can be successful
ii)   Make good decisions

Female respondents, as compared to male respondents, were more likely to:

i)   Be in charge of their own behaviour
ii)   Are self-disciplined (able to control self)

Comparisons between relationship statuses

Respondents who were not in a relationship, as compared to respondents who were dating one person, were more likely to be self-disciplined and exercise self control.

Comparisons across ethnicities

Malay and Indian respondents, as compared to Chinese respondents, were more likely to:

i)   Happily try new things and not mind if they make a mistake
ii)   Have people trust them to do the right things
iii)   Be confident to tell someone politely if they do not like what they are doing
iv)   Be in charge of their own behaviour
v)   Get over things pretty quickly if they go wrong
vi)   Be confident that they can be successful
vii)   Be a natural leader
viii)   Make good decisions

Comparisons across religion

Hindu and Islamic respondents tended to indicate that they have more avenues for demonstrating a sense of independence, as compared to the other major religions.

For example, Hindu and Islamic respondents, as compared to Buddhists, were more likely to:

    i)   Happily try new things and not mind if they make a mistake
    ii)   Be confident to tell someone politely if they do not like what they are doing
    iii)   Get over things pretty quickly if they go wrong
    iv)   Be confident that they can be successful
    v)   Be a natural leader
    vi)   Be self-disciplined
    vii)   Make good decisions

Comparisons across housing types

Respondents who stay in owned HDB, Condominiums or landed property were more likely to stay away from people who make trouble, as compared to those who live in rented HDB.

Sense of Generosity

	total	
	1.00 all	
	N	%
I understand how others are feeling	1,462	76%
Other kids come to me for help and advice	1,127	59%
I play fairly	1,440	75%
I am honest and will own up if I do something wrong	1,300	68%
I like to help others	1,524	79%
If someone does something wrong, I find it fairly easy to forgive them	1,259	66%
I am generous and sharing	1,324	69%
I know right from wrong and follow the rules	1,386	72%
I feel sad when I see others looking sad	1,231	64%
I am involved in charity work or helping others less fortunate than me	945	49%

A larger proportion of respondents indicated that they like to help others (79%), understand how others are feeling (76%) and play fairly (75%).

Only 49% of respondents indicated that they are involved in charity work or helping others less fortunate themselves as well as indicate that other kids come to them for help and advice (59%).

Comparisons between upper band schools and lower band schools

Upper band school respondents, as compared to lower band school respondents, were more likely to:

i)   Have other kids come to them for help and advice
ii)   Play fairly
iii)   Be honest and own up if they do something wrong
iv)   Like to help others
v)   Find it fairly easy forgive others if they do something wrong
vi)   Be generous and sharing
vii)   Know right from wrong and follow the rules

Comparisons across school streams

Express respondents, as compared to Normal Academic respondents, were more likely to:

i)   Have other kids come to them for help and advice
ii)   Play fairly
iii)   Be honest and own up if they do something wrong
iv)   Like to help others
v)   Find it fairly easy to forgive others if someone does something wrong
vi)   Know right from wrong and follow the rules
vii)   Feel sad when they see others looking sad

Express respondents tended to feel sad when they see others looking sad as compared to Normal Technical respondents as well.

Comparisons across educational levels

Secondary 1 respondents tended to:

i)   understand how others are feeling, as compared to Secondary 3 and 4 respondents
ii)   Know right from wrong and follow the rules, as compared Secondary 3 respondents
iii)   Be involved in charity work or helping those less fortunate than themselves

Secondary 2 respondents tended to know right from wrong and follow the rules, as compared to secondary 4 respondents.

Secondary 4 respondents were the least likely to be involved in charity work or helping those less fortunate than themselves, as compared to secondary 1,2 and 3 respondents.

Comparisons between genders

Females, as compared to males, were more likely to respond positively across all indicators of sense of generosity, with the exception of "playing fairly" and "finding it fairly easy to forgive others if someone does something wrong"

Comparisons across relationship statuses

Those not in a relationship, as compared to those dating one person, were more likely to know right from wrong and follow the rules.

Comparisons between races

Malay and Indian respondents, as compared to Chinese respondents were more likely to respond positively to the following indicators:

i)   Understand how others are feeling
ii)   Like to help others
iii)   Be generous and sharing
iv)   And feel sad when they see others looking sad

Malay respondents, were more likely than Chinese respondents to:

i)   Have other kids come to them for help and advice
ii)   Find it fairly easy to forgive others if they do something wrong
iii)   Be involved in charity or helping those less fortunate than themselves

Indian respondents were more likely than Chinese respondents to play fairly.

Comparisons across religion

Islamic respondents tended to respond positive across the generosity domain.

Islamic respondents, as compared to Buddhists respondents, were more likely to:

- i)   Understand how others were feeling
- ii)   Have other kids come to them for help and advice
- iii)   Play fairly
- iv)   Like to help others
- v)   Find it fairly easy to forgive others if they do something wrong
- vi)   Be generous and sharing
- vii) Feel sad when they see others feeling sad

Islamic respondents were more likely to like to help others and be generous and sharing as compared to Christian respondents.

Comparisons across housing types

Respondents that live in condominiums were more likely to know right from wrong and follow the rules, as compared to those who stay in rented HDB.

Looking at overall resilience (total score of Belonging, Mastery, Independence and Generosity)

	total	
	1.00 all	
	Valid N	Mean
BELONGING	1,941	8.9
MASTERY	1,940	6.0
INDEPENDENCE	1,938	7.8
GENEROSITY	1,931	8.1
TOTAL SUM OF SCORES of all Circle of Courage domains	1,941	30.7

Comparing between upper band schools and lower band schools:

Upper band school respondents tend to score higher on indicators of Belonging, Mastery and Generosity, thus having a higher resilience score as compared to lower band school respondents.

Comparing between school streams:

Normal Technical respondents tend to score higher on indicators of belonging, mastery and independence, thus having a higher resilience score as compared to Normal Academic respondents.

Express respondents tend to score higher on belonging, mastery and generosity, thus having a higher resilience score as compared to Normal Academic respondents.

Comparing between educational levels:

Secondary 1 respondents tend to score higher on indicators of belonging, mastery and independence, thus having a higher resilience score as compared to secondary 3 and 4 respondents. They tend to score higher on indicators of generosity as compared to secondary 4 respondents.

Secondary 2 respondents tend to score higher on indicators of belonging, mastery and independence, thus having a higher resilience score as compared to secondary 4 respondents.

Comparing between genders:

Females tend to score higher on indicators of Belonging and generosity than males.

Comparing across races:

Malay and Indian respondents tend to score higher on all indicators of resilience as compared to the Chinese respondents

Comparing across religion:

Hindu and Islamic respondents tend to score higher on indicators of belonging, mastery and independence as compared to Buddhists, Christian, Taoist as well as respondents from other religions. This group also scored higher on generosity as compared to the Buddhists and Christian respondents.

Comparing across nationalities:

Singaporean respondents tend to score higher on indicators of belonging as compared to those from other nationalities (non-PR).

Feelings and emotions at home

		total	
		1.00 all	
		N	%
Feelings at home	1 safe	741	41%
	2 loved	271	15%
	3 lonely	212	12%
	4 left out	52	3%
	5 nervous	4	0%
	6 happy	429	23%
	7 stressed	117	6%
	Total	1,826	100%

The most common core emotions that respondents feel at home are those of being safe (41%) and being happy (23%)

The least common core emotions that respondents feel at home are those of feeling nervous (0.2%) and feeling left out (3%)

79% of respondents felt positive emotions at home (i.e felt safe, liked and happy), while 29% of respondents felt negative emotions at home (i.e felt lonely, left out, nervous or stressed)

Comparisons between upper band schools and lower band schools

Upper band school respondents as compared to lower band school respondents, were more likely to feel loved at home and less likely to feel lonely at home.

Comparisons between school streams

Express respondents, as compared to Normal Technical respondents, were more likely to feel loved at home.

Normal Technical and Academic respondents, were more likely than Express respondents to feel left out at home.

Comparisons between genders

Male respondents, as compared to female respondents were more likely to feel happy but yet lonely at home. They were also less likely to feel loved at home.

Comparisons between relationships statuses

Respondents that were not in a relationship were less likely to feel stressed at home as compared to those in single, multiple and committed relationships.

Respondents who were dating multiple people, as compared to those not in a relationship, were more likely to feel nervous at home. This group was also more likely to feel loved at home, as compared to those dating one person.

Respondents who were in a committed relationship were more likely to feel left out at home, as compared to those not in a relationship.

Comparisons between races

Chinese and Malay respondents were more likely to feel safe at home, as compared to Indian respondents.

Indian respondents were more likely to feel loved and happy at home as compared to Malay respondents.

Comparisons between housing types

Respondents who stay in condominiums were more likely to feel loved, as compared to those who lived in a rented or owned HDB flat.

Comparisons between nationalities

Permanent Resident respondents were more likely to feel happy at home as compared to Singaporean respondents.

Feelings In school

		total	
		1.00 all	
		N	%
Feelings in school	1 safe	156	9%
	2 liked	178	10%
	3 lonely	75	4%
	4 left out	102	6%
	5 nervous	37	2%
	6 happy	974	53%
	7 stressed	310	17%
	Total	1,832	100%

The most common core emotion felt in school were that of being happy (53%) as well as being stressed (17%).

The least common core emotion felt in school were that of being nervous (2%) and lonely (4%).

72% of respondents felt positive emotions in school (i.e felt safe, liked or happy), while 28% of the respondents felt negative emotions in school (i.e felt lonely, left out, nervous or stressed)

Comparisons between upper band schools and lower band schools

Upper band school respondents were more likely to feel liked in school as compared to lower band school respondents

Comparisons between school streams

Those in the Express stream were more likely to feel liked in school as compared to those in the Normal Academic and Normal Technical stream.

Those in the Normal technical stream, were more likely than those in the Express stream to feel lonely in school.

Those in the Special stream were more likely to feel left out in school as compared to those in the normal academic, technical and express streams.

Comparisons between the educational levels

Those in secondary one were more likely to feel happy in school as compared to those in secondary 4 while those in secondary 4 were more likely to feel stressed in school as compared to those in secondary 1,2 and 3.

Respondents in secondary 5, as compared to those in secondary 4, were more likely to feel liked in school.

Comparisons between genders

Male respondents, as compared to female respondents, were more likely to feel safe but stressed in school.

Female respondents, as compared to male respondents, were more likely to feel liked and happy in school.

Comparisons between races

Chinese respondents, as compared to Malay respondents, were more likely to feel stressed in school. Malay respondents were more likely than Chinese respondents to feel happy in school.

Indian respondents were more likely than Malay respondents to feel liked in school.

Comparisons between religions

Islamic respondents were more likely to feel happy in school as compared to Buddhists and those in other religions.

Comparisons between housing types

Those who stay in owned HDB flats were more likely than those who stay in Condominiums to feel happy at school.

Comparisons between nationalities

Singaporean respondents, were more likely than Permanent resident respondents to feel happy in school.

Willingness to try at risk activities

		total	
		1.00 all	
		N	%
If my friends ask, I would try	Drinking Alcohol	267	14%
	Smoking Cigarettes	186	10%
	Glue Sniffing	52	3%
	Having Sex	137	7%
	Fighting	191	10%
	Skipping School	229	12%
	Stealing Items or Money	90	5%
	Joining a Gang	105	5%
	Getting a Tattoo or Piercing	244	13%
	None of the above	1,420	74%
	Total	1,918	100%

The majority of respondents (74%) would not try any of the listed at risk activities.

The more popular at risk activities that respondents were willing to try were drinking alcohol (14%), getting a tattoo or piercing (13%) and skipping school (12%)

The least popular at risk activities respondents were willing to try out were glue sniffing (3%), stealing (5%) and joining a gang (5%)

Comparisons between upper band schools and lower band schools

Lower band school respondents, as compared to upper bands school respondents, were more likely to try fighting, stealing, joining a gang and getting a tattoo or piercing. Upper band schools were less likely to try any of the listed at risk activities as compared to lower band schools.

Comparisons between school streams

Normal Academic respondents were more likely as compared to Express respondents, to try all 9 listed at risk activities. They were also more likely than Normal Technical respondents to try drinking alcohol.

Normal Technical respondents, were more likely:

i)   As compared to Normal academic and Express respondents to try smoking cigarettes
ii)   As compared to Express respondents to try fighting, stealing and joining a gang.

Express respondent were more likely than Normal academic respondents to try none of the listed at risk activities.

Comparisons between Educational levels

Secondary 1 and Secondary 2 respondents, as compared to Secondary 3, 4 and 5 respondents were more likely to try none of the above risk activities.

Secondary 3 respondents, as compared to Secondary 4 respondents were more likely to try none of the above risk activities.

Secondary 3 and Secondary 4 respondents, as compared to Secondary 1 respondents, were more likely to try:

i) Alcohol
ii) Smoking
iii) Gluesniffing
iv) Sex
v) Fighting
vi) Skipping school
vii) Stealing items or money
viii) Joining a gang
ix) Getting a tattoo or piercing

Secondary 3 and Secondary 4 respondents, as compared to Secondary 2 respondents, were more likely to try:

i) Alcohol
ii) Smoking
iii) Sex
iv) Fighting
v) Skipping school
vi) Stealing items or money
vii) Getting a tattoo or piercing

Secondary 4 respondents, as compared to Secondary 3 respondents, were more likely to try:

i) Alcohol
ii) Skipping school

Secondary 5 respondents, as compared to Secondary 1 respondents, were more likely to try:

i) Alcohol
ii) Smoking
iii) Skipping school
iv) Getting a tattoo or piercing

Secondary 5 respondents, as compared to Secondary 2 respondents, were more likely to try:

i) Alcohol
ii) Smoking
iii) Getting a tattoo or piercing

Secondary 5 respondents, as compared to Secondary 3 respondents, were more likely to try:

i) Alcohol
ii) Getting a tattoo or piercing

Comparing across gender

Male respondents, as compared to Female respondents, were more likely to try:

  i)   Alcohol
  ii)   Smoking
  iii)   Gluesniffing
  iv)   Sex
  v)   Fighting
  vi)   Skipping school
  vii)   Stealing items or money
  viii)   Joining a gang

Female respondents, as compared to Male respondents, were more likely to try none of the above.

The top 3 listed "at risk activity" that Male respondents were willing to try were:

  1) Alcohol (16%)
  2) Fighting (15%)
  3) Skipping school and getting a tattoo or piercing (13%)

The top 3 listed "at risk activity" that Female respondents were willing to try were:

  1) Getting a tattoo or piercing (12%)
  2) Alcohol (11%)
  3) Skipping school (10%)

Comparing across age

11-13 year old respondents, as compared to 14-16 year old respondents and 17-19 year old respondents, were more likely to try none of the above.

14-16 year old respondents, as compared to 11-13 year old respondents, were more likely to try all the listed at-risk activities.

17-19 year old respondents, as compared to 11-13 year old respondents, were more likely to try all the listed at-risk activities except stealing items or joining a gang.

17-19 year old respondents, as compared to 14-16 year old respondents, were more likely to try

  i)   Alcohol
  ii)   Getting a tattoo or piercing

Comparing across relationship status:

Respondents who were not in a relationship, as compared to respondents that were dating one person, dating multiple people, and in a committed relationship, were more likely to try none of the above listed at-risk activities.

Respondents who were dating one person and dating multiple people, as compared to respondents who were not in a relationship, were more likely to try all the above listed at-risk activities.

Respondents who were dating multiple people, as compared to respondents who were dating one person, were more likely to try sex.

Respondents who were in a committed relationship, as compared to respondents who were not in a relationship, were more likely to try all the above listed at-risk activities except sex and joining a gang.

Comparison across races

Chinese respondents were more likely than Malay respondents to try drinking alcohol.

Malay respondents, as compared to, Chinese respondents, were more likely to try:

i)   Smoking cigarettes
ii)   Fighting
iii)   Joining a gang

Indian respondents were more likely than Chinese respondents to try smoking cigarettes

Comparing across religion

Buddhists and Christian respondents, as compared to Islamic respondents, were more likely to try drinking alcohol.

Islamic respondents, as compared to Buddhists Christian and other respondents, were more likely to try smoking cigarettes.

Comparing across housing type

Respondents who stay in rented HDB flats were more likely to try:

i)   Smoking cigarettes as compared to those who stay in owned HDB flats, condominiums or landed property
ii)   Fighting as compared to those who stay in owned HDB flats, condominiums or landed property
iii)   Joining a gang as compared to those who stay in owned HDB flats

Looking at the total number of at risk activities

Those in lower band schools tended to try a higher total number of at risk activities than those in upper band schools.

Those in Normal Academic and Normal Technical tended to try a higher total number of at risk activities than those in Express streams

Those in Secondary 3,4 and 5 tended to try a higher total number of at risk activities than those in Secondary 1 and 2.

Males tended to try a higher total number of at risk activities than females.

Those in the age range of 14-19 years tend to try a higher number of at risk activities than those in the age range of 11-13 years.

Those who were in single, multiple and committed relationships were more likely to try a higher number of at risk activities than those not in a relationship, while those dating multiple people were more likely to try more at risk activities than those dating one person.

Examining sources of stress:

		total	
		1.00 all	
		N	%
sources of stress	School	1,065	55%
	Money	451	23%
	Personal relationships	455	23%
	Peer Pressure	460	24%
	Parents	539	28%
	Alcohol or drugs	83	4%
	Loneliness	452	23%
	Work	307	16%
	Others, Please specify1	289	15%
	Others, Please specify2	169	9%
	did not indicate any stressor	59	3%
	Total	1,941	100%

The largest proportion of respondents reported that school was a source of stress (55%). Parents (28%), peer pressure (24%), personal relationships (23%), loneliness (23%) and money (23%) were also highly reported sources of stress.

Other responses to sources of stress are school related (study, teachers, homework) at 66% of other responses, and friendship problems (5% or other responses).

Only 3% indicated no stressor.

Comparisons between upper band schools and lower band schools

Upper band school respondents, as compared to lower band school respondents were:

   v)   more likely to report school and work as a source of stress
   vi)   less likely to report money and parents as a source of stress

Comparisons across school streams

Normal Academic respondents and Normal Technical respondents, as compared to Express respondents were more likely to:

iv)   report money as a source of stress

v)   report alcohol or drugs as a source of stress

Normal Academic and Express students, as compared to Normal Technical respondents were more likely to:

i)   report peer pressure as a source of stress

Normal Technical, as compared to Normal Academic respondents, were more likely to:

i)   report alcohol and drugs as a source of stress

ii)   indicate no stressor

Express respondents, as compared to Normal Technical respondents, were more like to:

i)   report school as a source of stress

Express respondents and Special stream students, as compared to Normal Academic respondents, were more likely to:

iii)   report work as a source of stress

Comparisons across Secondary levels

Secondary 1 respondents, as compared to Secondary 2 respondents, were more likely to:

v)   report alcohol or drugs as a source of stress

Secondary 1 respondents and Secondary 4 respondents, as compared to Secondary 5 respondents, were more likely to:

i)   report loneliness as a source of stress

Secondary 3 and Secondary 4 respondents, as compared to Secondary 1 respondents, were more likely to:

i)   report school as a source of stress

ii)   report money as a source of stress

iii)   report peer pressure as a source of stress

Secondary 4 respondents, as compared to Secondary 2 respondents, were more likely to:

i)   report school as a source of stress

Secondary 4 respondents, as compared to Secondary 1 respondents, were more likely to:

i)   report parents as a source of stress

Comparisons between genders

Male respondents were more likely, than female respondents to:

iii)   report money as a source of stress
iv)   report alcohol and drugs as a source of stress
v)   report work as a source of stress

Female respondents were more likely, than male respondents to:

iii)   report school as a source of stress
iv)   report parents as a source of stress

Comparisons across age:

Respondents that were 14-16 years and 17-19 years old, as compared to 11-13 years old, were more likely to:

i)   report school as a source of stress
ii)   report money as a source of stress
iii)   report personal relationships as a source of stress

Comparisons across relationship statuses:

Respondents who were dating one person, dating multiple people and in a committed relationship, as compared to those not in a relationship, were more likely to:

i)   report personal relationships as a source of stress

Respondents dating multiple people, as compared to those not in a relationships, were more likely to:

i)   report money as a source of stress
ii)   report alcohol and drugs as a source of stress

Comparisons across ethnicities:

Chinese and Malay respondents, as compared to Indian respondents, were more likely to:

i)   report school as a source of stress
ii)   report money as a source of stress

Chinese respondents, as compared to Indian respondents, were more likely to

i)   report parents as a source of stress

Comparisons across religion:

Buddhist, Christian and Islamic respondents, as compared to Hindu respondents, were more likely to:

i)   report school as a source of stress

Buddhist, Taoist and Islamic respondents, as compared to Hindu respondents, were more likely to:

i)   report money as a source of stress

Buddhist and Islamic respondents, as compared to Christian respondents, were more likely to:

  i)   report money as a source of stress

Hindu respondents, as compared Islamic respondents, were more likely to:

  i)   not indicate any source of stress

<u>Comparison between housing types:</u>

Respondents who live in rented HDB flats, as compared to respondents who live in landed property, were more likely report money as a source of stress.

<u>Comparison between Nationality:</u>

Singaporean citizens and Permanent Residents, as compared to Others, were more likely to report school as a source of stress.

55% of Singaporeans reported school as a source of stress as compared to 59% of Permanent Residents and 39% of the Others.

<u>Total number of stressors mentioned:</u>

Express respondents report more stressors than Normal Technical respondents

Secondary 3 and 4 students report more stressors than Secondary 1 and Secondary 2.

Those dating multiple people report more stressors than those not in a relationship.

Chinese and Malays report more stressors than Indians.

Buddhist, Christian, Taoist and Muslims report more stressors than Hindus.

Correlation Analysis

(A) We hypothesise that resilience is negatively correlated to trying at-risk behaviours.

Descriptive Statistics

		Mean	Std. Deviation	N
total number of vices willing to try out		0.7777	1.75504	1,930
BELONGING		8.9418	5.59300	1,941
MASTERY		5.9536	5.79012	1,940
INDEPENDENCE		7.7621	5.67978	1,938
GENEROSITY		8.1445	5.72001	1,931
TOTAL SUM OF SCORES of all Circle of Courage domains		30.7450	19.79686	1,941

Correlations

		total number of vices willing to try out	BELONGING	MASTERY	INDEPENDENCE	GENEROSITY	TOTAL SUM OF SCORES of all Circle of Courage domains
total number of vices willing to try out	Pearson Correlation	1	-.197(**)	-.150(**)	-.166(**)	-.191(**)	-.202(**)
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	1,930	1,930	1,929	1,930	1,923	1,930
BELONGING	Pearson Correlation	-.197(**)	1	.683(**)	.655(**)	.624(**)	.848(**)
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000
	N	1,930	1,941	1,940	1,938	1,931	1,941
MASTERY	Pearson Correlation	-.150(**)	.683(**)	1	.751(**)	.651(**)	.886(**)
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000
	N	1,929	1,940	1,940	1,937	1,930	1,940
INDEPENDENCE	Pearson Correlation	-.166(**)	.655(**)	.751(**)	1	.688(**)	.890(**)
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000
	N	1,930	1,938	1,937	1,938	1,931	1,938
GENEROSITY	Pearson Correlation	-.191(**)	.624(**)	.651(**)	.688(**)	1	.852(**)
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000
	N	1,923	1,931	1,930	1,931	1,931	1,931
TOTAL SUM OF SCORES of all Circle of Courage domains	Pearson Correlation	-.202(**)	.848(**)	.886(**)	.890(**)	.852(**)	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	

	N	1,930	1,941	1,940	1,938	1,931	1,941

**. Correlation is significant at the 0.01 level (2-tailed).

Remarks:

1) There exists a negative linear relationship between the number of vices that students are willing to try and score in any given circle of courage domains, and this relationship is statistically significant at 99% level of confidence.

2) Higher scores in circle of courage domain is associated with lower number of vices that students are willing to try. This means that the higher the student scored on any circle of courage domain, the lower the total number of vices willing to try and vice versa (the meaning of 2-tailed test)
3) Correlation coefficients that range from /0.00 - 0.30/ are considered weak linear relationships

(B) We hypothesise that stressors at school and at home are more positively correlated to at-risk behaviours.

Descriptive Statistics

		Mean	Std. Deviation	N
total number of vices willing to try out		0.7777	1.75504	1,930
total number of stressors mentioned		2.1999	1.65511	1,941

Correlations

		total number of vices willing to try out	total number of stressors mentioned
total number of vices willing to try out	Pearson Correlation	1	.258(**)
	Sig. (2-tailed)		0.000
	N	1,930	1,930
total number of stressors mentioned	Pearson Correlation	.258(**)	1
	Sig. (2-tailed)	0.000	
	N	1,930	1,941

**. Correlation is significant at the 0.01 level (2-tailed).

Remarks:

1) There exists a positive linear relationship between number of vices willing to try and number of stressors mentioned and this relationship is statistically significant at 99% level of confidence.

2) Higher number of vices willing to try out is associated with higher number of stressors mentioned. This means that the more vices the student is willing to try out, the more stressors he/she mentions, and vice versa (the meaning of 2- tailed)
3) Correlation coefficients that range from /0.00 - 0.30/ are considered weak linear relationships

		Willing to try a vice/ vices	School	Money	Personal relationships	Peer Pressure	Parents	Alcohol or drugs	Loneliness	Work
Willing to try a vice/ vices	Pearson Correlation	1	.086(**)	.200(**)	.156(**)	0.018	.139(**)	.067(**)	.074(**)	0.014
	Sig. (2-tailed)		0.000	0.000	0.000	0.436	0.000	0.003	0.001	0.541
	N	1,930	1,922	1,921	1,921	1,920	1,921	1,921	1,921	1,921
Stressor: School	Pearson Correlation	.086(**)	1	.130(**)	0.041	.047(*)	.123(**)	0.016	0.003	-0.033
	Sig. (2-tailed)	0.000		0.000	0.073	0.041	0.000	0.478	0.889	0.147
	N	1,922	1,927	1,926	1,926	1,925	1,926	1,926	1,926	1,926
Stressor: Money	Pearson Correlation	.200(**)	.130(**)	1	.206(**)	.136(**)	.232(**)	.124(**)	.157(**)	.084(**)
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000
	N	1,921	1,926	1,926	1,926	1,925	1,926	1,926	1,926	1,926
Stressor: Personal relationships	Pearson Correlation	.156(**)	0.041	.206(**)	1	.158(**)	.245(**)	.111(**)	.182(**)	.065(**)
	Sig. (2-tailed)	0.000	0.073	0.000		0.000	0.000	0.000	0.000	0.004
	N	1,921	1,926	1,926	1,926	1,925	1,926	1,926	1,926	1,926
Stressor: Peer Pressure	Pearson Correlation	0.018	.047(*)	.136(**)	.158(**)	1	.145(**)	.127(**)	.152(**)	.065(**)
	Sig. (2-tailed)	0.436	0.041	0.000	0.000		0.000	0.000	0.000	0.004
	N	1,920	1,925	1,925	1,925	1,925	1,925	1,925	1,925	1,925
Stressor: Parents	Pearson Correlation	.139(**)	.123(**)	.232(**)	.245(**)	.145(**)	1	.084(**)	.155(**)	.080(**)
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000
	N	1,921	1,926	1,926	1,926	1,925	1,927	1,926	1,926	1,926
Stressor: Alcohol or drugs	Pearson Correlation	.067(**)	0.016	.124(**)	.111(**)	.127(**)	.084(**)	1	.178(**)	.124(**)
	Sig. (2-tailed)	0.003	0.478	0.000	0.000	0.000	0.000		0.000	0.000
	N	1,921	1,926	1,926	1,926	1,925	1,926	1,926	1,926	1,926
Stressor: Loneliness	Pearson Correlation	.074(**)	0.003	.157(**)	.182(**)	.152(**)	.155(**)	.178(**)	1	.087(**)
	Sig. (2-tailed)	0.001	0.889	0.000	0.000	0.000	0.000	0.000		0.000
	N	1,921	1,926	1,926	1,926	1,925	1,926	1,926	1,926	1,926
Stressor: Work	Pearson Correlation	0.014	-0.033	.084(**)	.065(**)	.065(**)	.080(**)	.124(**)	.087(**)	1
	Sig. (2-tailed)	0.541	0.147	0.000	0.004	0.004	0.000	0.000	0.000	
	N	1,921	1,926	1,926	1,926	1,925	1,926	1,926	1,926	1,926

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Remarks:

1) There exists a positive linear relationship between taking up a vice and being stressed about school, money, personal relationships, parents, alcohol/drugs, loneliness and this relationship is statistically significant at 99% level of confidence.

2) Those who are stressed about school, money, personal relationships, parents, alcohol or drugs,and loneliness have a tendency to be willing to take up a vice.

3) Correlation coefficient will give an idea of the relative strength of relationship of each stressor with willingness to take up a vice. Correlation coefficients that range from /0.00 - 0.30/ are considered weak linear relationships

(C) We hypothesise that those scores for social skills in difficult social scenarios would be negatively correlated to at-risk behaviours.

Correlations

		If my friends ask, I would try ALCOHOL	If my friends ask, I would try SMOKING CIGARETTES	If my friends ask, I would try GLUE SNIFFING	If my friends ask, I would try SEX	If my friends ask, I would try FIGHTING	If my friends ask, I would try SKIPPING SCHOOL	If my friends ask, I would try STEALING ITEMS OR MONEY	If my friends ask, I would try JOINING A GANG	If my friends ask, I would try GETTING A TATTOO OR PIERCING
situations_mean	Pearson Correlation	-.232(**)	-.286(**)	-.311(**)	-.281(**)	-.307(**)	-.245(**)	-.322(**)	-.318(**)	-.253(**)
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	1,924	1,925	1,924	1,925	1,925	1,925	1,925	1,925	1,924
You are in a music store with a friend when she asks you to slip a CD under your jacket	Pearson Correlation	-.103(**)	-.148(**)	-.122(**)	-.149(**)	-.143(**)	-.137(**)	-.218(**)	-.164(**)	-.137(**)
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	1,903	1,904	1,903	1,904	1,904	1,904	1,904	1,904	1,903
You are about to go over to a friend's house on a Friday night when your mother asks you where you are going	Pearson Correlation	-.194(**)	-.225(**)	-.157(**)	-.165(**)	-.193(**)	-.215(**)	-.180(**)	-.183(**)	-.174(**)
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	1,909	1,910	1,909	1,910	1,910	1,910	1,910	1,910	1,909
You are walking when some teenager walks towards you and deliberately bumps you	Pearson Correlation	-.249(**)	-.258(**)	-.239(**)	-.258(**)	-.328(**)	-.192(**)	-.249(**)	-.260(**)	-.234(**)
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	1,906	1,907	1,906	1,907	1,907	1,907	1,907	1,907	1,906
You are at a party and one of your friends offers you some pills	Pearson Correlation	0.007	-0.030	-.181(**)	-.083(**)	-.054(*)	-0.034	-.100(**)	-.120(**)	-0.042
	Sig. (2-tailed)	0.754	0.198	0.000	0.000	0.018	0.135	0.000	0.000	0.066
	N	1,897	1,898	1,897	1,898	1,898	1,898	1,898	1,898	1,897

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Remarks
1) Lower situational scores for each situation is associated with tendency to take up the vice where the correlation is tagged as significant
2) The tendency to steal items or money have the strongest relative association with lower situations mean score

(D) We hypothesise that resilience should be positively correlated greater communication and social skills.

Correlations

		situations_mean	BELONGING	MASTERY	INDEPENDENCE	GENEROSITY	TOTAL SUM OF SCORES of all Circle of Courage domains
situations_mean	Pearson Correlation	1	.139(**)	.089(**)	.081(**)	.133(**)	.127(**)
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	1,931	1,931	1,930	1,931	1,924	1,931
BELONGING	Pearson Correlation	.139(**)	1	.683(**)	.655(**)	.624(**)	.848(**)
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000
	N	1,931	1,941	1,940	1,938	1,931	1,941
MASTERY	Pearson Correlation	.089(**)	.683(**)	1	.751(**)	.651(**)	.886(**)
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000
	N	1,930	1,940	1,940	1,937	1,930	1,940
INDEPENDENCE	Pearson Correlation	.081(**)	.655(**)	.751(**)	1	.688(**)	.890(**)
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000
	N	1,931	1,938	1,937	1,938	1,931	1,938
GENEROSITY	Pearson Correlation	.133(**)	.624(**)	.651(**)	.688(**)	1	.852(**)
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000
	N	1,924	1,931	1,930	1,931	1,931	1,931
TOTAL SUM OF SCORES of all Circle of Courage domains	Pearson Correlation	.127(**)	.848(**)	.886(**)	.890(**)	.852(**)	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	1,931	1,941	1,940	1,938	1,931	1,941

**. Correlation is significant at the 0.01 level (2-tailed).

Remarks:

1) There exists a positive linear relationship between situational score and score in any given circle of courage domains, and this relationship is statistically significant at 99% level of confidence.
2) Higher scores in circle of courage domain is associated with higher scores in situational reactions. This means that the higher the student score on any circle of courage domain, the higher he/she scores in situational reactions and vice versa (the meaning of 2- tailed)
3) Correlation coefficients that range from /0.00 - 0.30/ are considered weak linear relationships

We hypothesise that social skills should be negatively correlated with reported stressors

Correlations

		situations_mean	You are in a music store with a friend when she asks you to slip a CD under your jacket	You are about to go over to a friend's house on a Friday night when your mother asks you where you are going	You are walking when some teenager walks towards you and deliberately bumps you	You are at a party and one of your friends offers you some pills
total number of stressors mentioned	Pearson Correlation	-.104(**)	-.061(**)	-.085(**)	-.094(**)	-0.002
	Sig. (2-tailed)	0.000	0.008	0.000	0.000	0.938
	N	1,931	1,910	1,916	1,912	1,903
School	Pearson Correlation	-0.025	-0.008	-0.007	-0.024	-0.018
	Sig. (2-tailed)	0.269	0.741	0.775	0.304	0.435
	N	1,923	1,902	1,908	1,904	1,897
Money	Pearson Correlation	-.085(**)	-.066(**)	-.080(**)	-.101(**)	0.040
	Sig. (2-tailed)	0.000	0.004	0.000	0.000	0.084
	N	1,922	1,901	1,907	1,903	1,896
Personal relationships	Pearson Correlation	-.082(**)	-.078(**)	-.057(*)	-.080(**)	0.026
	Sig. (2-tailed)	0.000	0.001	0.013	0.000	0.253
	N	1,922	1,901	1,907	1,903	1,896
Peer Pressure	Pearson Correlation	0.003	-0.009	0.020	0.008	-0.009
	Sig. (2-tailed)	0.884	0.689	0.382	0.712	0.711
	N	1,921	1,900	1,906	1,902	1,895
Parents	Pearson Correlation	-.104(**)	-.060(**)	-.094(**)	-.085(**)	0.001
	Sig. (2-tailed)	0.000	0.009	0.000	0.000	0.966
	N	1,922	1,901	1,907	1,903	1,896
Alcohol or drugs	Pearson Correlation	-.166(**)	-.074(**)	-.128(**)	-.096(**)	-.087(**)
	Sig. (2-tailed)	0.000	0.001	0.000	0.000	0.000
	N	1,922	1,901	1,907	1,903	1,896
Loneliness	Pearson Correlation	-.058(*)	-0.040	-.048(*)	-0.039	-0.008
	Sig. (2-tailed)	0.011	0.081	0.038	0.093	0.729
	N	1,922	1,901	1,907	1,903	1,896
Work	Pearson Correlation	0.006	0.024	0.009	-0.014	0.002
	Sig. (2-tailed)	0.795	0.298	0.694	0.539	0.930
	N	1,922	1,901	1,907	1,903	1,896

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Remarks
1) Lower situational mean score is associated with being stressed over money, personal relationships, parents, alcohol or drugs, and loneliness
2) Lower situational scores in each situation is associated with stressors where the correlation is tagged as significant.
3) Lower number of stressors mentioned is associated with higher situational scores

(E) We hypothesise that resiliency is positively correlated with emotions in school and at home.

Correlations Domain scores VS Feelings at Home

		athome_safe	athome_loved	athome_lonely	athome_leftout	athome_nervous	athome_happy	athome_stressed
TOTAL SUM OF SCORES of all Circle of Courage domains	Pearson Correlation	0.005	.155(**)	-.081(**)	-.065(**)	-0.036	0.017	-.109(**)
	Sig. (2-tailed)	0.825	0.000	0.001	0.006	0.122	0.472	0.000
	N	1,826	1,826	1,826	1,826	1,826	1,826	1,826
BELONGING	Pearson Correlation	0.017	.168(**)	-.106(**)	-.102(**)	-0.042	0.034	-.124(**)
	Sig. (2-tailed)	0.456	0.000	0.000	0.000	0.075	0.141	0.000
	N	1,826	1,826	1,826	1,826	1,826	1,826	1,826
MASTERY	Pearson Correlation	-0.011	.121(**)	-.065(**)	-0.039	-0.018	0.030	-.091(**)
	Sig. (2-tailed)	0.641	0.000	0.005	0.099	0.446	0.201	0.000
	N	1,825	1,825	1,825	1,825	1,825	1,825	1,825
INDEPENDENCE	Pearson Correlation	0.002	.121(**)	-.063(**)	-.047(*)	-.058(*)	0.023	-.095(**)
	Sig. (2-tailed)	0.925	0.000	0.007	0.045	0.014	0.328	0.000
	N	1,826	1,826	1,826	1,826	1,826	1,826	1,826
GENEROSITY	Pearson Correlation	0.009	.130(**)	-0.045	-0.035	-0.009	-0.030	-.071(**)
	Sig. (2-tailed)	0.697	0.000	0.054	0.141	0.689	0.200	0.002
	N	1,823	1,823	1,823	1,823	1,823	1,823	1,823

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Remarks
1) Higher domain scores are associated with the feeling of being loved at home
2) Lower domain scores are associated with the feeling of being lonely at home.
3) Lower independence scores are associated with feelings of being nervous at home
4) Lower domain scores are associated with the feeling of being stressed at home
5) The feeling of being loved at home has the strongest relative association with the total circle of courage score

Correlations Domain Scores VS Feelings in School

		inschool_safe	inschool_liked	inschool_lonely	inschool_leftout	inschool_nervous	inschool_happy	inschool_stressed
TOTAL SUM OF SCORES of all Circle of Courage domains	Pearson Correlation	.047(*)	.070(**)	-.097(**)	-.159(**)	-.058(*)	.171(**)	-.148(**)
	Sig. (2-tailed)	0.046	0.003	0.000	0.000	0.013	0.000	0.000
	N	1,832	1,832	1,832	1,832	1,832	1,832	1,832
BELONGING	Pearson Correlation	0.042	.055(*)	-.155(**)	-.201(**)	-.078(**)	.246(**)	-.169(**)
	Sig. (2-tailed)	0.069	0.018	0.000	0.000	0.001	0.000	0.000
	N	1,832	1,832	1,832	1,832	1,832	1,832	1,832
MASTERY	Pearson Correlation	.052(*)	.060(*)	-.070(**)	-.149(**)	-0.036	.143(**)	-.134(**)
	Sig. (2-tailed)	0.027	0.011	0.003	0.000	0.125	0.000	0.000
	N	1,831	1,831	1,831	1,831	1,831	1,831	1,831
INDEPENDENCE	Pearson Correlation	0.039	.062(**)	-.056(*)	-.135(**)	-.060(*)	.118(**)	-.101(**)
	Sig. (2-tailed)	0.095	0.008	0.017	0.000	0.011	0.000	0.000
	N	1,832	1,832	1,832	1,832	1,832	1,832	1,832
GENEROSITY	Pearson Correlation	0.031	.065(**)	-.058(*)	-.069(**)	-0.025	.090(**)	-.111(**)
	Sig. (2-tailed)	0.182	0.005	0.012	0.003	0.279	0.000	0.000
	N	1,829	1,829	1,829	1,829	1,829	1,829	1,829

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Remarks

1) Higher domain scores are associated with the feeling of being liked in school
2) Lower domain scores are associated with the feeling of being lonely in school
3) Lower domain scores are associated with the feeling of being leftout in school
4) Lower belonging and independence scores are associated with the feeling of being nervous in school
5) Higher domain scores are associated with the feeling of being happy in school
6) Lower domain scores are associated with the feeling of being stressed in school
7) The feeling of being happy in school has the strongest relative association with the total circle of courage score

(F) We hypothesise that stress is negatively correlated with emotions in school and at home.

Correlations Stressors VS Feelings at Home

|		athome_safe	athome_loved	athome_lonely	athome_leftout	athome_nervous	athome_happy	athome_stressed
total number of stressors mentioned	Pearson Correlation	0.030	-.057(*)	0.046	.109(**)	0.009	-.141(**)	.131(**)
	Sig. (2-tailed)	0.203	0.015	0.051	0.000	0.701	0.000	0.000
	N	1,826	1,826	1,826	1,826	1,826	1,826	1,826
School	Pearson Correlation	0.036	0.003	-0.031	0.010	0.019	-0.018	-0.015
	Sig. (2-tailed)	0.129	0.908	0.193	0.682	0.419	0.444	0.535
	N	1,816	1,816	1,816	1,816	1,816	1,816	1,816
Money	Pearson Correlation	0.022	-0.039	0.022	.079(**)	0.002	-.074(**)	.059(*)
	Sig. (2-tailed)	0.356	0.093	0.345	0.001	0.925	0.002	0.012
	N	1,816	1,816	1,816	1,816	1,816	1,816	1,816
Personal relationships	Pearson Correlation	-0.009	0.002	.080(**)	.085(**)	0.030	-.134(**)	.078(**)
	Sig. (2-tailed)	0.709	0.947	0.001	0.000	0.207	0.000	0.001
	N	1,816	1,816	1,816	1,816	1,816	1,816	1,816
Peer Pressure	Pearson Correlation	0.025	0.021	-0.024	0.029	0.002	-.050(*)	0.018
	Sig. (2-tailed)	0.282	0.379	0.312	0.220	0.949	0.032	0.452
	N	1,815	1,815	1,815	1,815	1,815	1,815	1,815
Parents	Pearson Correlation	-0.011	-.133(**)	.075(**)	.124(**)	-0.002	-.138(**)	.272(**)
	Sig. (2-tailed)	0.624	0.000	0.001	0.000	0.917	0.000	0.000
	N	1,816	1,816	1,816	1,816	1,816	1,816	1,816
Alcohol or drugs	Pearson Correlation	0.001	-0.025	-0.007	0.014	-0.010	0.001	0.035
	Sig. (2-tailed)	0.978	0.288	0.762	0.563	0.676	0.962	0.139
	N	1,816	1,816	1,816	1,816	1,816	1,816	1,816
Loneliness	Pearson Correlation	-0.011	-0.045	.134(**)	.068(**)	0.002	-.100(**)	0.039
	Sig. (2-tailed)	0.626	0.055	0.000	0.004	0.948	0.000	0.098
	N	1,816	1,816	1,816	1,816	1,816	1,816	1,816
Work	Pearson Correlation	0.032	-0.020	-0.042	0.008	0.012	0.003	0.005
	Sig. (2-tailed)	0.170	0.399	0.076	0.719	0.601	0.897	0.826
	N	1,816	1,816	1,816	1,816	1,816	1,816	1,816

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Remarks
1) Lower number of stressors mentioned is associated with feelings of being loved and happy at home while higher number of stressors is associated with feeling of being stressed at home
2) Not being stressed over money, personal relationships, peer pressure, parents and loneliness is associated with feelings of being happy at home
3) Being stressed over money is associated with feelings of being leftout and stressed at home.
4) Being stressed over personal relationships is associated with feelings of being lonely, leftout and stressed at home.
5) Being stressed over parents is associated with feelings of being lonely, leftout, and stressed at home, while not stressing over parents is associated with feelings of being loved at home
6) Being stressed over loneliness is associated with feelings of being lonely and leftout at home

Correlations Stressors VS Feelings in School

		inschool_safe	inschool_liked	inschool_lonely	inschool_leftout	inschool_nervous	inschool_happy	inschool_stressed
total number of stressors mentioned	Pearson Correlation	-0.014	-0.018	.094(**)	.050(*)	0.037	-.148(**)	.128(**)
	Sig. (2-tailed)	0.539	0.446	0.000	0.032	0.113	0.000	0.000
	N	1,832	1,832	1,832	1,832	1,832	1,832	1,832
School	Pearson Correlation	0.037	0.001	0.013	0.041	0.037	-.222(**)	.221(**)
	Sig. (2-tailed)	0.110	0.967	0.573	0.079	0.118	0.000	0.000
	N	1,823	1,823	1,823	1,823	1,823	1,823	1,823
Money	Pearson Correlation	0.012	-0.017	0.033	0.010	0.042	-.065(**)	.052(*)
	Sig. (2-tailed)	0.602	0.463	0.159	0.664	0.076	0.005	0.026
	N	1,823	1,823	1,823	1,823	1,823	1,823	1,823
Personal relationships	Pearson Correlation	-0.021	-0.018	.079(**)	.072(**)	0.013	-.050(*)	0.006
	Sig. (2-tailed)	0.362	0.442	0.001	0.002	0.567	0.034	0.808
	N	1,823	1,823	1,823	1,823	1,823	1,823	1,823
Peer Pressure	Pearson Correlation	-0.013	-0.002	.064(**)	0.003	-0.015	-.077(**)	.084(**)
	Sig. (2-tailed)	0.572	0.937	0.006	0.904	0.527	0.001	0.000
	N	1,822	1,822	1,822	1,822	1,822	1,822	1,822
Parents	Pearson Correlation	-0.034	-0.018	0.037	0.014	0.000	-0.002	0.014
	Sig. (2-tailed)	0.143	0.452	0.112	0.545	0.992	0.928	0.549
	N	1,823	1,823	1,823	1,823	1,823	1,823	1,823
Alcohol or drugs	Pearson Correlation	-0.025	-0.005	.095(**)	-0.039	-0.030	0.000	0.007
	Sig. (2-tailed)	0.295	0.839	0.000	0.097	0.197	0.995	0.769
	N	1,823	1,823	1,823	1,823	1,823	1,823	1,823
Loneliness	Pearson Correlation	-0.042	-.055(*)	.129(**)	.133(**)	0.022	-.067(**)	0.006
	Sig. (2-tailed)	0.074	0.019	0.000	0.000	0.356	0.004	0.792
	N	1,823	1,823	1,823	1,823	1,823	1,823	1,823
Work	Pearson Correlation	-0.006	0.016	-0.005	-.058(*)	0.002	-0.022	.058(*)
	Sig. (2-tailed)	0.788	0.505	0.842	0.013	0.929	0.355	0.013
	N	1,823	1,823	1,823	1,823	1,823	1,823	1,823

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Remarks

1) Higher number of stressors mentioned is associated with feelings of being lonely, leftout, and stressed school while lower number of stressors is associated with feeling of being happy in school

2) Not being stressed over school, money, personal relationships, peer pressure and loneliness is associated with the feeling of being happy in school

3) Being stressed over personal relationships is associated with feelings of being lonely and leftout in school.

4) Being stressed over peer pressure is associated with feelings of being lonely and stressed in school

5) Being stressed over alcohol or drugs is associated with being lonely in school

6) Being stressed over loneliness is associated with the feelings of being lonely and leftout in school

Conclusions (Correlations)
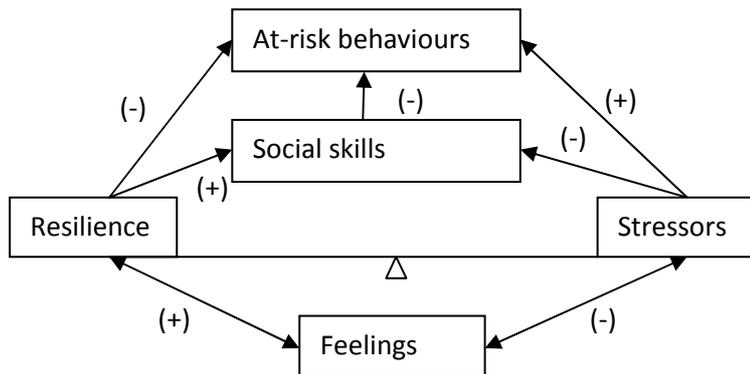
As the diagram above displays, the correlations between the measured variables confirm all hypotheses from A through G. This gives us an indication of the relationships between different constructs within the theories of resilience and positive youth development. Our study further demonstrates that there is coherence between theories of resilience and positive youth development in a Singaporean context.

Utilising the paradigm of resiliency, our research shows that stressors constitute a portion of risk factors that could translate into a willingness to try at-risk behaviours. Conversely, youths with high resiliency, based on the Circle of Courage are protected from at-risk behaviours. The balance between these two exogenous factors (risk and protective) can serve as a good predictor for how vulnerable a youth is to destructive or negative behaviours. The interaction between these two factors is theorized by Ong et al. (2006) to lead to greater emotional complexity and maturity.

Additionally, our research indicates that better social and communication skills are seen to be an endogenous variable through which resiliency influences at-risk behaviours. The ability to negotiate their own stance without isolating themselves from their friends is seen to be an important avenue in which resiliency protects him. This finding converges with research which places negotiating new relationships with parents and peer groups as one of the key challenges and developmental milestones during adolescence (Veeraraghavan, 1999; Douvan and Adelson, 196; A. Freud, 1969; Blos, 1979; Steinberg & Silverberg, 1986). A strong body of attachment research points to the role of supportive parental and adult relationship with the youth to develop their self-concept, autonomy, and social skills (Hill & Holmbeck, 1986; Allen, Aber, & Leadbeater, 1990; Allen, Hauser, Bell, & O'Connor, 1994; Ryan & Lynch, 1989). This too, is aligned with the role of family and community in positive youth developmental models and the Circle of Courage.

From the paradigm of positive youth development, the balance of resiliency and stressors in our study is linked to the emotional well-being of the young person at home and in school. The higher total scores in the circle of courage, the more likely that the young person reports feeling loved at home and happy in school. On the contrary, a higher number of reported stressors is associated with feelings of stress at home and feelings of being lonely and left out in school. Because adolescence is a critical period for emotional well-being and development, medical and developmental research show that the brain undergoes significant developmental changes, establishing neural and behavioural patterns that will last until adulthood (National Research Council and Institute of

Medicine, 2007). This underlines the importance of meeting the emotional needs of this age group to promote success in a lifetime of facing challenges.

Our study gives us confidence that the principles of positive youth development and resiliency found in the Circle of Courage is as relevant today, and in our context, as it is internationally. The responsibility of building youth capacity must be shared in collaboration amongst families, communities, peer groups and other adults in their lives for any meaningful effect to take place. In developing the capacity to cope with stressors faced by Singaporean youths at home, at school, with peers, and in the community, we not only reduce the vulnerabilities of youth to unhealthy influences, but give them a greater chance for a lifetime of success.

Conclusion (Demographics)

School Bands

Upper Band	Lower Band
Higher scores in CoC except Independence	Lower scores in CoC except Independence
Less at-risk activities	More at-risk activities
More Liked in School	More Lonely in School
More Loved at Home	More Lonely at Home
More affluent	Less affluent
More stressed about School	More stressed about Money and Parents

In general, consistent differences were found in the scores for the Circle of Courage model of resiliency between upper band and lower band schools. Additionally, upper band respondents were consistently less willing to try at-risk activities.

From our study, these differences could be attributed to 3 factors: the school environment, the home environment and the relative affluence. Upper band respondents reported feeling more loved at home and liked in school. Further examination of the demographic pattern of upper band schools seemed to hint at greater affluence based on housing type (38% in owned HDB flats, 32% in condominiums, 19% landed property). Lower band respondents reported feeling lonely at home and in school and were generally not as affluent (76% in owned HDB flats, 9% in condominium, 3% in landed property).

Ungar et al (2007) noted that access to supportive relationships with significant others, peers and adults within one's family and community was a major aspect of fostering resilience across many different cultures. Other factors associated with fostering resilience were a sense of cohesion with other and finding a meaningful role in one's community. He further noted that there was a strong association between resilience and the availability of financial, educational, medical and employment assistance and/or opportunities, as well as access to food clothing and shelter.

We speculate that the less affluent households could be feeling overstressed and under supported and caregivers are thus less available to their youths due to struggles regarding work. From our research, respondents from less affluent households are more likely to be exposed to smoking, fighting and gangs in their environment. What is unfortunate is that some of the lower band youths are also feeling isolated in their school and peer communities.

School Streams

Normal Academic	Normal Technical	Express
Lower scores in CoC except generosity than NT and Independence than Express	Higher scores in CoC except generosity than NA	Higher scores in CoC except Independence than NA
More left out at home	More left out at home	Less left out at home
-	More lonely in school than express	Less lonely in school than NT
Less liked in school	Less liked in school	More liked in school
More willing to try all at-risk activities than express	More willing to try smoking, fighting, stealing and joining a gang than express	Less willing to try all at risk activities
-	Least number of stressors	Most number of stressors
Stressed over money, alcohol or drugs, peer pressure	Stressed over money, alcohol or drugs	Stressed over School and Peer pressure
Less affluent	Less affluent	More affluent
-	Bigger household size	Smaller household size
	More males	More females

Express students score higher in the Circle of Courage scores, are generally feeling more positive at home and in school and are hence able to cope with a high amount of school stress. In particular, under the Generosity domain of the CoC, Express students have more opportunities to demonstrate generosity to other students and empathy. In terms of Belonging, they have a more positive school and home environment. This is consistent with the fact that express students are the majority in the educational school system and are the least marginalised amongst their peer groups.

Unfortunately, Normal Academic students seem to suffer in the educational system across all domains of the Circle of Courage measures especially Mastery. Perhaps having similar curriculum as the express, but yet viewed as underperforming, subjects them to stereotype threat. The experience of anxiety or concern in situations where others expect you to underperform has been shown to reduce the performance of individuals who belong to negatively stereotyped groups (Steel & Aronson, 1995). They are further disadvantaged by feeling left out at home and not liked in school, and come from less affluent households. The consistent low scoring of Normal Academic Stream students warrants closer examination.

In Beyond Social Services experience with youth referred, it was observed that a particular group of students – those who were demoted from a higher stream to a lower ability stream (e.g Express to Normal Academic or Normal Academic to Normal Technical) needed more support and encouragement. This population often had to deal with a loss of self-esteem, a different study environment and pace, sudden change of peers and often prejudice from fellow students, teachers and family members. With this sharp "loss of face", the student often avoids going to school, perhaps compounding upon previous trouble with school authorities. This continuing tension, if not resolved may result in extended period of absence from school, in some cases lasting from months to a year. It may be worth exploring if additional services and support for this particular population during the vulnerable period could better integrate them back into the school system.

Interestingly, Normal Technical students, despite willing to try a number of at-risk activities, feeling left out at home and lonely in school, reported the *least* number of stressors, and still had relatively higher scores on the CoC than Normal Academic students. What possibly sets this group apart could be an educational curriculum that fosters a high sense of mastery and independence (mean domain scores of Independence and Mastery were highest in Normal Technical streams).

 In particular Normal Technical students indicated that they were better at athletic and artistic activities, and that adults cared more about the things they were good at.

Education level and Age

Lower Secondary (Sec 1-2, aged 12-15)	Upper Secondary (Sec 3-5, aged (14-16)
Higher scores in CoC in all 4 domains	Lower scores in CoC in all 4 domains
Feel less stressed in school	Feel more stressed in school
Less willing to try all at-risk activities	More willing to try all at-risk activities
Less total number of stressors	More total number of stressors
Less stressed over school, money, personal relationships and parents	More Stressed over school, money, personal relationships, parents

Lower secondary respondents (those aged 12-15 years) tend to score higher in Circle of Courage scores, feel less stressed in school, have less total number of stressors and are willing to try less at-risk activities. The findings are not surprising as the demands of schooling are generally not as taxing at lower secondary levels and they tend to increase at upper secondary levels where students have to prepare for national examinations. More pertinently, upper secondary students are entering the adolescent stage, a critical point in their development.

The feelings of stressed over money, personal relationships and parents are also supported by Erik Erikson's theory of psycho-social development of adolescence undergoing the struggle of identity vs. role confusion. This turning point in human development seems to be the reconciliation between 'the person one has come to be' and 'the person society expects one to become' (Wright, 1982).

Furthermore, one of the challenges associated with this stage is the need to re-establish boundaries for themselves and renegotiate the relationships between themselves and their peers and parents. Peers offer independence from the family, acceptance, a sense of personal worth, and support in times of confusion, models for appropriate conduct in a complex world, and social identity (Kaplan 1996). However the influence of parents still plays a role throughout adolescence, despite the fact that adolescents may misbehave suggesting a rebellious motive (Chassin et al 1986). This renegotiation of relationships and personal identity may be the reason why scores of resilience in the Circle of Courage take significant dip in early adolescent teens.

In the past decade, neuroscience has shed some light on why adolescent teens tend to engage in more risk taking behaviour. Structural and functional changes within the pre-frontal cortex (responsible for executive functions like decision-making) and its connections to other brain regions occur across adolescence and young adulthood. During that period, the maturation of the socio-emotional systems outpaces the development of cognitive-control systems (Steinberg 2008). The pressure to establish hierarchy among peers and impress others of the opposite sex seems to lead to an increase in risk-tolerance and risk-taking behaviour (Mcalvanah, 2008; Ronay and von Hippel, 2010). This seems to be also reflected in the fact that respondents in a relationship are more open to risk-taking behaviour than those not in a relationship.

Gender

Males	Females
Lower in Belonging and Generosity	Higher in Belonging and Generosity
More lonely and happy at home	More loved at home
Feel more safe and stressed in school	Liked and happy in school
More at-risk activities except tattoos and piercing	Less at-risk activities except tattoos and piercing
Willing to try more total at-risk activities	Less willing to try more total at-risk activities
More stressed over money, alcohol or drugs	More stressed over school, parents

Gabriel and Gardner (1999) found that women focus more on personal relationships, while men focus more on task-at-hand. Women perform better than men at tests involving emotional interpretation such as understanding facial expressions and empathy (Hall, 1978; Hall et al., 2007; Fischer and Manstead, 2007). This seems to be confirmed by their higher domain scores in Belonging and Generosity, as well as their reported feelings of being loved at home and liked and happy in school. In contrast, males do not fare significantly better in terms of Mastery or Independence. The picture of their emotional well-being at home and in school is also equally mixed. Perhaps this reflects recent findings that males suffer more adjustment problems in schools than females (Anastas and Reinherz, 2010). Boys entering school had more problems with aggression and information processing than did girls. Later differences in learning and adjustment largely reflected the high proportion of boys among children receiving psychological services.

Of greatest concern, males tend to be more willing to try at-risk activities than females. Gender differences in risk-taking are well-supported in research in predicting that males take part in risky behaviour as a form of "showing-off" in mate advertisement (Pawlowski and Atwal, 2008).

Unfortunately, in a modern context, many risk-taking behaviours are viewed as counterproductive or even disruptive in a school environment. Perhaps avenues for healthy and adventurous activities, in the presence of peers, could be targeted at maladjusted adolescent males.

Race

Chinese	Malay	Indians
More Buddhist, Taoist and Christian	More Muslim	More Hindu
Lower scores in CoC	Higher scores in CoC	Higher Scores in CoC
Feel more safe at home	Feel more safe at home	Feel more loved and happy at home
Feel more stressed in school	Feel more happy in school	Feel more liked in school
More likely to try drinking	More likely to smoke, fight and join gangs	More likely to smoke
More number of stressors	More number of stressors	Less number of stressors
More stressed over school, money and parents	More stressed over school and money	Less stressed over school, money and parents
Found more in Express streams	Found more in Normal Technical streams	-
Smallest households	Bigger households	Smaller households
More affluent	-	-

Malays and Indians tend to score better in measures of resilience in the Circle of Courage. Additionally, Indians seem to perceive less stressors or cope better with them.

Cultural elements (shared values, beliefs, practices) within race, religion and communities play an important part in the fostering of Belonging, Mastery, Independence and Generosity. Further research is necessary to elucidate and identify some of the elements that can better explain these cultural differences. These elements, once identified, could be improved upon, or transferred and emulated through learning in a culturally-sensitive fashion.

Additional studies should also study aspects of stress and their associated strategies for coping from an ecological perspective, taking into account differences in culture, religion and community.

References:

Aldinger, C. and C. Vince Whitman (2003). *Skills for Health: Skills-based Health Education including Life Skills: An Important Component of a Child-friendly/Health-promoting School*. The World Health Organization's Information Series on School Health: Document 9. Geneva: WHO et al.

Allen, J. P., Hauser, S. T., Eickholt, C., Bell, K. L., & O'Connor, T. G. (1994b). *Autonomy and relatedness in family interactions as predictors of expressions of negative adolescent affect.* Journal of Research on Adolescence, 4, 535-552.

Allen, J. P., Aber, J. L., & Leadbeater, B. J. (1990). *Adolescent problem behaviors: The influence of attachment and autonomy.* Psychiatric Clinics of North America, 13, 455-467.

Anastas, J. W. and Reinherz, H. (1984), *GENDER DIFFERENCES IN LEARNING AND ADJUSTMENT PROBLEMS IN SCHOOL: Results of a Longitudinal Study*. American Journal of Orthopsychiatry, 54: 110–122

Babbie, E. (1995) *The Practice of Social Research(7th ed.)*. Belmont, CA: Wadsworth.

Barry, Monica (ed) (2005*) Youth Policy and Social Inclusion. Critical. Debates with Young People*. Routledge: London

Benard, B. (1991). *Fostering Resiliency in Kids: Protective Factors in the Family, School, and Community* (www.nwrac.org/pub/library/f/f_foster.pdf, 6 January 2003).

Blos, P. (1979). *The adolescent passage: Developmental issues*. New York: International Universities Press, Inc.

Brendtro, L. K., Brokenleg, M., Bockern, S. V. (1990). *Reclaiming youth at risk: Our hope for the future*. Bloomington, IN: National Educational Service.

Brendtro, L. K., Brokenleg, M., Bockern, S. V. (2002). *Reclaiming youth at risk: Our hope for the future(Rev ED)*. Bloomington, IN: National Educational Service.

Brendtro, L., Larson, S. (2006) The Resilience Revolution. Solution Tree, Bloomington, IN.

Chassin, L., Presson, C.C., Sherman, S.J., Montello, D. and McGrew, J. (1986) *Changes in peer and parent influence during adolescence: longitudinal versus cross-sectional perspectives on smoking initiation.* Developmental Psychology, 22, 327–234

Committee on Rights of the Child (2003). *Consideration of Reports Submitted By States Parties Under Article 44 Of The Convention: Concluding observations: Singapore CRC/C/15/Add.220*

Coopersmith, Stanley. (1967) *The Antecedents of Self Esteem*. San Francisco: W.H. Freeman.

Dahl, R. & Hariri, A. (2004) *Frontiers of Research on Adolescent Decision Making— Contributions from the Biological, Behavioral, and Social Sciences.* NATIONAL RESEARCH COUNCIL/INSTITUTE OF MEDICINE BOARD ON CHILDREN, YOUTH, AND FAMILIES COMMITTEE ON ADOLESCENT HEALTH AND DEVELOPMENT.

Douvan, E Adelson, J 1996*, The adolescent experience*, John Wiley & Sons, New York.

Erikson, E. H. (1968). Youth, Identity, and Crisis. New York: Norton.

Fiering, C. (1996). Concepts of romance in 15-year-old adolescents. Journal of Research on Adolescence, 6(2), 181-200.

Fischer, A. H., & Manstead, S. R. (2000). *The relation between gender and emotions in different cultures*. In A. H. Fischer (Ed.), Gender and emotion: Social psychological perspectives (pp.71-94). Paris, France: Cambridge University Press.

Gabriel, S., & Gardner, W. L. (1999). *Are there "his" and "her" types of interdependence? The implications of gender differences in collective and relational interdependence for affect, behavior, and cognition*. Journal of Personality and Social Psychology, 75, 642-655

Hall, J. A. (1978). *Gender effects in decoding nonverbal cues*. Psychological Bulletin, 85, 845–857

Hall, J. A., Murphy, N. A., & Schmid Mast, M. (2007). *Nonverbal self-accuracy in interpersonal interaction*. Personality and Social Psychology Bulletin, 33, 1675-1685.

Hill, J. P., & Holmbeck, G. N. (1986). *Attachment and autonomy during adolescence.* Annals of child development, 3, 145-189.

Kaplan, Leslie S. (1996) *Coping With Peer Pressure*. New York: The Rosen Publishing Group.

McAlvanah, P. (2008). *Are people more risk-taking in the presence of the opposite sex?* Journal of Economic Psychology, 30, 136-146

M. E. Koltko-Rivera (2006) "Rediscovering the later version of Maslow's hierarchy of needs: Self-transcendence and opportunities for theory, research, and unification," *Review of General Psychology,* vol. 10, pp. 302-317.

Ong, A. D., Bergeman, C. S., Bisconti, T. L., & Wallace, K. A. (2006). *Psychological resilience, positive emotions, and successful adaptation to stress in later life.* Journal of Personality and Social Psychology, 91(4), 730-749

Pawlowski, B., Atwal, R. & Dunbar, R. I. M. (2008). *'Sex differences in everyday risk-taking behavior in humans',* Evolutionary Psychology, 6(1), 29-42.

Rahe, R &Geneder, E.(1983). *Adaptation to and Recovery from Captivity Stress.* Military Medicine. 148. 577-885

Ronay, R., & von Hippel, W. (2010). *The presence of an attractive woman elevates testosterone and physical risk taking in young men.* Social Psychological and Personality Science, 1(1), 57-64.

Ryan, R. M., & Lynch, J. H. (1989). *Emotional Autonomy versus detachment: Revisiting the vicissitudes of adolescence and young adulthood.* Child Development, 60, 340-356.

Steele, Claude M.; Aronson, Joshua (1995). *"Stereotype threat and the intellectual test performance of African Americans".* Journal of Personality and Social Psychology 69 (5): 797–811.

Steinberg, L., & Silverberg, S. (1986). *The vicissitudes of autonomy in early adolescence*. Child Development, 57, 841-851.

Steinberg, L. (2008). *A social neuroscience perspective on adolescent risk-taking.* Developmental Review, 28, *78-106*

Ungar, M., Brown, M., Liebenberg, L., Othman, R., Kwong, W. M., Armstrong, M. & Gilgun, J. (2007) *Unique pathways to resilience across cultures.* Adolescence. 42(166) 287-310.

Veeraraghavan, V. & Singh, S. (1999) *Teenage blues: A guide for parents, teachers and counselors*. Mosaic Books, New Delhi.

Werner, E. E. (1995). *Resilience in development.* Current Directions in Psychological Science, 4, 81-85.

Wright, J. Eugene (1982). *Erikson: Identity & Religion*. New York; The Seabury Press, p. 73

Annex 1

Thank you for agreeing to take part in this survey, which should take you less than __ minutes to complete. Your input is very valuable to us.

Please think carefully about your answers and answer truthfully. Your responses to this questionnaire are anonymous and confidential; no information that you provide will enable your identification from the questionnaire.

For more information, please contact Pei Kwang at 6375-2940 or email spk@beyond.org.sg

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 Please write down the name of your school:	_____

Which school stream are you currently in?

- ☐ Normal Academic
- ☐ Normal Technical
- ☐ Express
- ☐ Special
- ☐ Others:_____

Which year are you currently in?

- ☐ Secondary 1
- ☐ Secondary 2
- ☐ Secondary 3
- ☐ Secondary 4
- ☐ Secondary 5
- ☐ ITE
- ☐ Polytechnic
- ☐ Junior College
- ☐ Others:_____

Please tell us a little bit about yourself

1) What is your gender?
- ☐ Male
- ☐ Female

2) What is your age?
- ☐ 7-10 years
- ☐ 11-13 years
- ☐ 14-16 years
- ☐ 17-19 years
- ☐ Over20 years

3) You are:
- ☐ Not in a relationship
- ☐ Dating (going out with) 1 person
- ☐ Dating (going out with) multiple people
- ☐ In a committed (serious) relationship
- ☐ Married

4) What is your ethnicity?
- ☐ Chinese
- ☐ Malay
- ☐ Indian
- ☐ Others :_____

5) What is your religion?
- ☐ Buddhist
- ☐ Christian
- ☐ Taoist
- ☐ Hindu
- ☐ Islam
- ☐ Others :_____

6) In what type of housing do you live in?
- ☐ Rented HDB flat
- ☐ Owned HDB flat
- ☐ Condominium
- ☐ Landed Property
- ☐ Others:_____

7) In total, how many people live in your household, including yourself? _____
(please write down number)

8) I am a:
- ☐ Singaporean
- ☐ Permanent Resident
- ☐ Others:_____

For each of the following statements, please indicate how much you agree or disagree with each statement. (PLEASE PUT AN X IN ONE BOX FOR EACH STATEMENT)

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
1. I have enough friends	❏	❏	❏	❏	❏
2. I involve myself in activities (either in school or out of)	❏	❏	❏	❏	❏
3. I find it easy to fit in with others	❏	❏	❏	❏	❏
4. I often spend time with family	❏	❏	❏	❏	❏
5. I respect the elders in my life	❏	❏	❏	❏	❏
6. I can turn to family when in trouble	❏	❏	❏	❏	❏
7. My friends support me	❏	❏	❏	❏	❏
8. I feel that I am an important part of Singapore	❏	❏	❏	❏	❏
9. I enjoy going to school	❏	❏	❏	❏	❏
10. People at school generally like me	❏	❏	❏	❏	❏
11. I am good at making new friends	❏	❏	❏	❏	❏
12. I am good at athletic activities (e,g sports, dance , etc…)	❏	❏	❏	❏	❏
13. I am good at artistic activities (e.g music, drawing, etc…)	❏	❏	❏	❏	❏
14. Adults (e.g teachers, parents, etc..) care about the things I am good at	❏	❏	❏	❏	❏
15. I am good with nature (caring for the environment or animals)	❏	❏	❏	❏	❏
16. I persist at a task even when it is difficult	❏	❏	❏	❏	❏
17. I have creative thoughts and ideas	❏	❏	❏	❏	❏
18. I think things through before acting	❏	❏	❏	❏	❏
19. I am pretty good at my school work	❏	❏	❏	❏	❏
20. I am good at being handy (fixing, repairing and setting up of things)	❏	❏	❏	❏	❏
21. I will happily try new things and don't mind if I make a mistake	❏	❏	❏	❏	❏
22. People trust me to do the right thing	❏	❏	❏	❏	❏
23. I am confident to tell someone (politely) if I don't like what they are doing	❏	❏	❏	❏	❏
24. I am in charge of my own behaviour	❏	❏	❏	❏	❏
25. If something goes wrong I get over it pretty quickly	❏	❏	❏	❏	❏
26. I am confident that I can be successful	❏	❏	❏	❏	❏
27. I am a natural leader	❏	❏	❏	❏	❏

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
28. I am self-disciplined (able to control myself)	❑	❑	❑	❑	❑
29. I make good decisions	❑	❑	❑	❑	❑
30. I stay away from people who make trouble	❑	❑	❑	❑	❑
31. I understand how others are feeling	❑	❑	❑	❑	❑
32. Other kids come to me for help and advice	❑	❑	❑	❑	❑
33. I play fairly	❑	❑	❑	❑	❑
34. I am honest and will own up if I do something wrong	❑	❑	❑	❑	❑
35. I like to help others	❑	❑	❑	❑	❑
36. If someone does something wrong, I find it fairly easy to forgive them	❑	❑	❑	❑	❑
37. I am generous and sharing	❑	❑	❑	❑	❑
38. I know right from wrong and follow the rules	❑	❑	❑	❑	❑
39. I feel sad when I see others looking sad	❑	❑	❑	❑	❑
40. I am involved in charity work or helping others less fortunate than me	❑	❑	❑	❑	❑

Now we would like to ask you a few questions about what you would feel and do in different situations. There are no right or wrong answers here. What we want is your honest opinion.

1) At home, I feel (Please tick ONE that most applies)
☐ Safe
☐ Loved
☐ Lonely
☐ Left Out
☐ Nervous
☐ Happy
☐ Stressed

2) In School, I feel (Please tick ONE that most applies)
☐ Safe
☐ Liked
☐ Lonely
☐ Left out
☐ Nervous
☐ Happy
☐ Stressed

3) If my friends asked, I would try (Tick ALL THAT APPLY):

☐ Alcohol
☐ Smoking cigarettes
☐ Glue sniffing
☐ Sex
☐ Fighting
☐ Skipping school
☐ Stealing items or money
☐ Joining a gang
☐ Getting a tattoo or piercing
☐ None of the above

4) You're looking at CDs in a music store with a friend. You look up and see her slip a CD under her jacket. She smiles and says, "Which one do you want? Go ahead, take it, nobody's around." There is nobody in sight, no employees and no other customers. What would say? (Tick ONE)

☐ Pretend you didn't hear her
☐ "OK but let's leave fast!"
☐ "Don't be stupid. We'll get caught."
☐ "If you get caught, I'm not going to be involved."

5) It's 8:00pm on a Friday and you are about to go over to a friend's home when your mother asks you where you are going. You say, "Oh, just going to hang out with some friends." She says, "Shouldn't you stay at home and finish your homework?" What would you do now? (Tick ONE)

☐ Leave the house anyway
☐ Explain what you are going to do with your friends, tell her when you'd get home you will have time to finish your homework
☐ Change your plans and stay at home
☐ Tell a lie and say that you will be studying with your friends or that you have completed your homework

6) You are walking through a part of Singapore that you don't know, and some teenager (of your sex) you don't know is walking toward you. He/she is about your size, and he/she deliberately bumps into you. What would you say or do? (Tick ONE)

☐ Start a fight or argument
☐ Say "excuse me" and keep walking
☐ Say "watch where you're going" and keep walking
☐ Swear at the person or push him back

7) You are at a party at someone's house, and one of your friends offers you some pills, claiming that they will make the party more "fun". What would you say or do? (Tick <u>ONE</u>)

☐ Take the pills
☐ Tell your friend, "No thanks, I don't use drugs," and suggest that you and your friend go and do something else
☐ Just say, "No thanks," and tell an adult about it the next day.
☐ Make up a good excuse, tell your friend you had something else to do, and leave

8) What causes you the most stress? (Tick all that <u>apply</u> to you)

☐ School
☐ Money
☐ Personal Relationships
☐ Peer Pressure
☐ Parents
☐ Alcohol or drugs
☐ Loneliness
☐ Work
☐ Other _____

THE END – THANK YOU

*This questionnaire has, in part, been adapted from the Engagement Instrument © developed by Debbie Draper, Learning Band Coordinator, Barossa District Office of Service Delivery (2003)

Participants need not answer this part			
	B	1-10	
	M	11-20	
	I	21-30	
	G	31-40	
TOTAL			

Annex 2

Parental Consent Form for Participation in Research

I give my consent for my child _____ to participate in the research titled, "Singapore Youth Resilience Survey" (MOE no: RQ 68-09(11)), which is being conducted by Beyond Social Services, a Voluntary Welfare Organisation.

Data collection will be anonymous as no identifying information will be included in the data your child provides. Your signed consent form will be kept separate from the data and no one will be able to link their responses to the forms.

1. The purpose of the research is allow professionals such as educators, social workers, counsellors, parents and other community partners to holistically understand the resiliency of youth in Singapore and thus be in a better position to engage them at an individual, group or macro policy level.

2. The benefits that my child may expect from the research may include a better self-awareness of their sense of Belonging, Mastery, Independence and Generosity. However, there will not be any direct material benefits from participating in this survey.

3. The procedures are as follows: The data collection will take place over a class period which will not last longer than 30 minutes. During that time, teachers will be collecting data using a self-administered questionnaire. If my child has any questions or concerns, he or she will be able to approach a teacher at any time.

4. The questionnaire has been used in 4 Secondary Schools thus far and no discomforts or stresses have been reported or are foreseen. The choice to participate in the study will not affect the academic grade of my child in any way.

5. The researcher coordinator, Seah Pei Kwang from Beyond Social Services will answer any further questions about the research, now or during the course of the survey, and can be reached by phone at 6375 2940 or via email spk@beyond.org.sg

Please sign both copies of this form. Keep one and return the other to the teacher who provided the form.

Name & Signature of Researcher   Name & Signature of Parent/Guardian

Seah Pei Kwang_____   _____

This research survey conducted by Beyond Social Services has been approved by the Ministry of Education, Singapore. Questions or concerns regarding your child's rights as a participant or the Singapore Youth Resilience Survey in general can be addressed to:

Annex 3

Letter to Schools

Dear …..

Beyond Social Services is a youth serving agency that deals primarily with issues related to juvenile delinquency. While there seems to be lots of focus in research and in the media about what is wrong with youths. There is little to show what's right with them. As progress is facilitated when we play to our strengths and minimize our weaknesses, it is perhaps more important to know what it right with our youths rather than what is wrong with them.

The Circle of Courage Youth Resilience Survey is approved by the Ministry of Education. While we have responses across different schools, we are short of participation from students in top schools like yours. Hence, we seek your permission to administer this survey among your students aged from 13 years to 16 years old. Even just among the student from your class would be most helpful.

This survey was designed with youth resiliency in mind. While many youth surveys in Singapore are designed to search out trends of negative at-risk behavior, this survey has been designed in order to understand and promote the strengths of our youth, their connectedness to their communities, and their ability to be resilient regardless of their age, gender, education and economic background.

This survey has been designed using a resiliency model known as "**The Circle of Courage**." The model is premised upon a strengths-based perspective. This approach allows educators to draw on the more affirmative traits, attitudes and resources of their young people by more meaningfully channeling these strengths towards their education and self-development. Adapted from the four categories of self-esteem defined by child psychologist Stanley Coopersmith which include significance, competence, power, and virtue, the Circle of Courage seamlessly integrates philosophies on traditional child-rearing, theories on early education and youth work, including contemporary resilience research. In essence, the Circle of Courage comprises four distinct though inter-related aspect of youth resilience: **Belonging, Mastery, Independence and Generosity**. For more information on the Circle, please visit http://www.reclaiming.com/content/about-circle-of-courage.

The Circle of Courage has been widely applied in school settings around the world, including other contexts such as treatment facilities, family and youth development programs. As Brendtro, Brokenleg and Bockern (1990) posit, the Circle is "*perhaps the most effective system of positive discipline ever developed*." In 2001, a survey was given to students in Vermont, USA from Grades 8 to12. The preliminary findings indicated that the more students reported feelings of belonging, mastery, independence, and generosity, the less likely they were to participate in risky behavior such as smoking, fighting, and substance abuse. For more information on this study, do visit http://healthvermont.gov/pubs/yrbs2007/YRBS_2007.pdf and http://www.fcccp.org/Assets%20in%20Action.htm

The participants of this survey will be part of our study. Please note that while we will be sharing all *aggregated* data, any information revealing the identity of students and their schools will remain confidential. We will be glad though to provide you with data specific to your school.

Please do not hesitate to contact us with any further questions you may have.

Thank you.