

# Singapore Youth Resilience Survey:

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## Examining the stressors, risks and resilience of Young People

By Seah Pei Kwang & Samuel Tang

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A survey on the resiliency of young people in Singapore. This study 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. This paper should not be quoted or reproduced in any form without the expressed consent of Beyond Social Services.

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## CONTENTS

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<b>Abstract</b>	<b>4</b>
<b>1. Background Information</b>	<b>5</b>
1.1 Introduction	<b>6</b>
<b>2. Methodology</b>	<b>7</b>
2.1 Target Population	<b>7</b>
2.2 Sampling Method	<b>7</b>
2.3 Questionnaire design	<b>7</b>
2.4 Mode of Administration	<b>8</b>
<b>3. Findings</b>	<b>9</b>
3.1 Sense of Belonging	<b>9</b>
3.2 Sense of Mastery	<b>12</b>
3.3 Sense of Independence	<b>15</b>
3.4 Sense of Generosity	<b>18</b>
<b>4. Feelings and Emotions at home</b>	<b>21</b>
<b>5. Feelings and Emotions at school</b>	<b>23</b>
<b>6. Willingness to try at-risk Activities</b>	<b>25</b>
<b>7. Sources of Stress</b>	<b>28</b>
<b>8. Conclusions (correlation)</b>	<b>31</b>
<b>9. Conclusions (demographics)</b>	<b>33</b>
10.1 School Bands	<b>33</b>
10.2 School Streams	<b>34</b>
10.3 Educational level and Age	<b>36</b>
10.4 Gender	<b>37</b>
10.5 Race	<b>38</b>
<b>References</b>	<b>39</b>

## **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)

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.

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.

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.

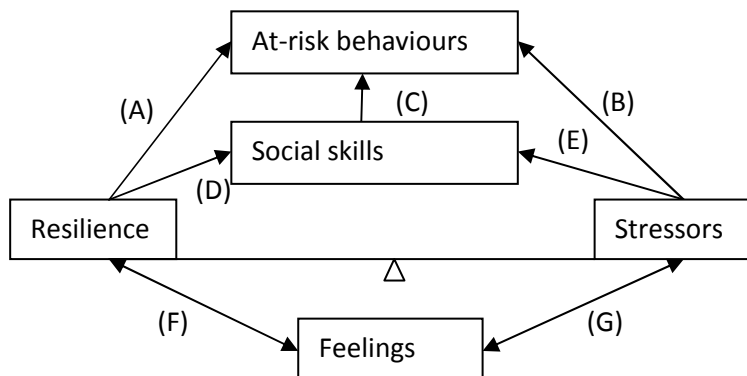
## Introduction

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 second level of analysis explores the links between the different constructs.



## **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 to 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.

### **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).

**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.



## Findings

### 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 persist 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

Comparison between housing types:

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.

## 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.

### 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 and Secondary 4 respondents, as compared to Secondary 1 or 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

#### 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.

#### 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 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

### 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.

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

### Comparisons across Secondary levels

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

Comparison between housing types:

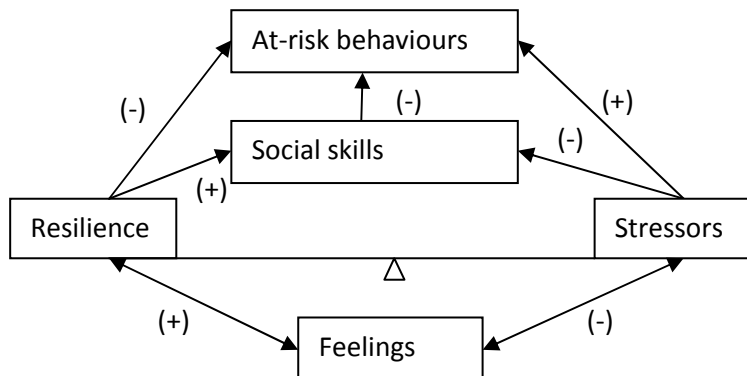
Respondents who live in rented HDB flats, as compared to respondents who live in landed property, were more likely report money as a source of stress.

Comparison between Nationality:

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

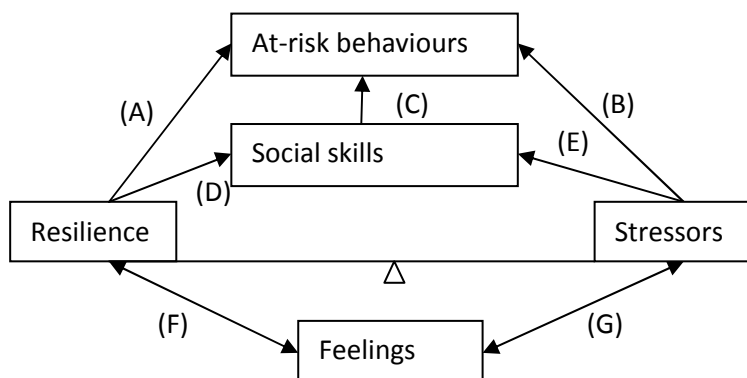
55% of Singaporeans reported school as a source of stress as compared to 59% of Permanent Residents and 39% of the Others.

## Conclusions (Correlations)



Pearson's Correlation analysis performed on the data collected indicated the above correlations between the constructs of at-risk behaviors, social skills, stressors, feelings and resilience. For example, there exists a negative linear relationship between the number of at-risk behaviors that students are willing to try and resilience scores.

As the diagram above displays, the correlations between the measured variables confirm earlier hypotheses from A through G (see below). 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, 1996; 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

<b>Normal Academic</b>	<b>Normal Technical</b>	<b>Express</b>
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 from schools, 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 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

<b>Lower Secondary (Sec 1-2, aged 12-15)</b>	<b>Upper Secondary (Sec 3-5, aged 14-16)</b>
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

<b>Males</b>	<b>Females</b>
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

<b>Chinese</b>	<b>Malay</b>	<b>Indians</b>
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:

- Alldinger, 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.nwrc.org/pub/library/ff\\_foster.pdf](http://www.nwrc.org/pub/library/ff_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



# Singapore Youth Resilience Survey:

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## Examining the stressors, risks and resilience of Young People

By Seah Pei Kwang & Samuel Tang

29 May 2011



A survey on the resiliency of young people in Singapore. This study 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. This paper should not be quoted or reproduced in any form without the expressed consent of Beyond Social Services.

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## CONTENTS

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<b>Abstract</b>	<b>4</b>
<b>1. Background Information</b>	<b>5</b>
1.1 Introduction	<b>6</b>
<b>2. Methodology</b>	<b>7</b>
2.1 Target Population	<b>7</b>
2.2 Sampling Method	<b>7</b>
2.3 Questionnaire design	<b>7</b>
2.4 Mode of Administration	<b>8</b>
<b>3. Findings</b>	<b>9</b>
3.1 Sense of Belonging	<b>9</b>
3.2 Sense of Mastery	<b>12</b>
3.3 Sense of Independence	<b>15</b>
3.4 Sense of Generosity	<b>18</b>
<b>4. Feelings and Emotions at home</b>	<b>21</b>
<b>5. Feelings and Emotions at school</b>	<b>23</b>
<b>6. Willingness to try at-risk Activities</b>	<b>25</b>
<b>7. Sources of Stress</b>	<b>28</b>
<b>8. Conclusions (correlation)</b>	<b>31</b>
<b>9. Conclusions (demographics)</b>	<b>33</b>
10.1 School Bands	<b>33</b>
10.2 School Streams	<b>34</b>
10.3 Educational level and Age	<b>36</b>
10.4 Gender	<b>37</b>
10.5 Race	<b>38</b>
<b>References</b>	<b>39</b>

## **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)

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.

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.

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.

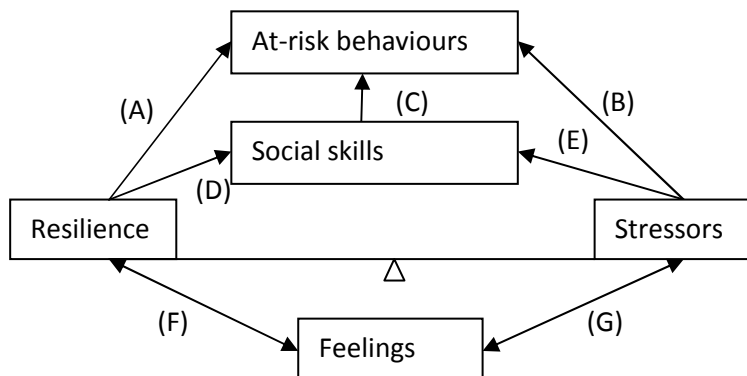
## Introduction

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 second level of analysis explores the links between the different constructs.



## **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 to 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.

### **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).

**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.



## Findings

### 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 persist 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

Comparison between housing types:

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.

## 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.

### 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 and Secondary 4 respondents, as compared to Secondary 1 or 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

#### 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.

#### 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 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

### 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.

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

### Comparisons across Secondary levels

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

Comparison between housing types:

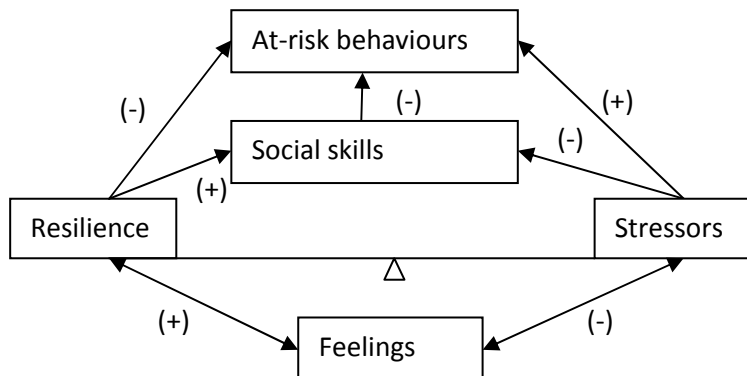
Respondents who live in rented HDB flats, as compared to respondents who live in landed property, were more likely report money as a source of stress.

Comparison between Nationality:

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

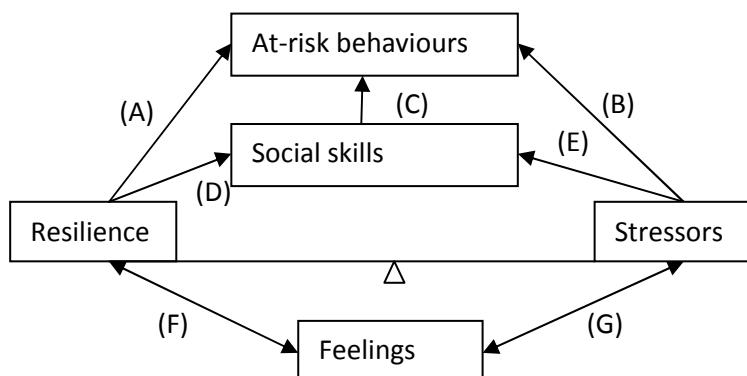
55% of Singaporeans reported school as a source of stress as compared to 59% of Permanent Residents and 39% of the Others.

## Conclusions (Correlations)



Pearson's Correlation analysis performed on the data collected indicated the above correlations between the constructs of at-risk behaviors, social skills, stressors, feelings and resilience. For example, there exists a negative linear relationship between the number of at-risk behaviors that students are willing to try and resilience scores.

As the diagram above displays, the correlations between the measured variables confirm earlier hypotheses from A through G (see below). 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, 1996; 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

<b>Normal Academic</b>	<b>Normal Technical</b>	<b>Express</b>
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 from schools, 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 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

<b>Lower Secondary (Sec 1-2, aged 12-15)</b>	<b>Upper Secondary (Sec 3-5, aged 14-16)</b>
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

<b>Males</b>	<b>Females</b>
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

<b>Chinese</b>	<b>Malay</b>	<b>Indians</b>
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:

- Alldinger, 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.nwrc.org/pub/library/ff\\_foster.pdf](http://www.nwrc.org/pub/library/ff_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



# Singapore Youth Resilience Survey:

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## Examining the stressors, risks and resilience of Young People

By Seah Pei Kwang & Samuel Tang

29 May 2011



A survey on the resiliency of young people in Singapore. This study 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. This paper should not be quoted or reproduced in any form without the expressed consent of Beyond Social Services.

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## CONTENTS

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<b>Abstract</b>	<b>4</b>
<b>1. Background Information</b>	<b>5</b>
1.1 Introduction	<b>6</b>
<b>2. Methodology</b>	<b>7</b>
2.1 Target Population	<b>7</b>
2.2 Sampling Method	<b>7</b>
2.3 Questionnaire design	<b>7</b>
2.4 Mode of Administration	<b>8</b>
<b>3. Findings</b>	<b>9</b>
3.1 Sense of Belonging	<b>9</b>
3.2 Sense of Mastery	<b>12</b>
3.3 Sense of Independence	<b>15</b>
3.4 Sense of Generosity	<b>18</b>
<b>4. Feelings and Emotions at home</b>	<b>21</b>
<b>5. Feelings and Emotions at school</b>	<b>23</b>
<b>6. Willingness to try at-risk Activities</b>	<b>25</b>
<b>7. Sources of Stress</b>	<b>28</b>
<b>8. Conclusions (correlation)</b>	<b>31</b>
<b>9. Conclusions (demographics)</b>	<b>33</b>
10.1 School Bands	<b>33</b>
10.2 School Streams	<b>34</b>
10.3 Educational level and Age	<b>36</b>
10.4 Gender	<b>37</b>
10.5 Race	<b>38</b>
<b>References</b>	<b>39</b>

## **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)

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.

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.

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.

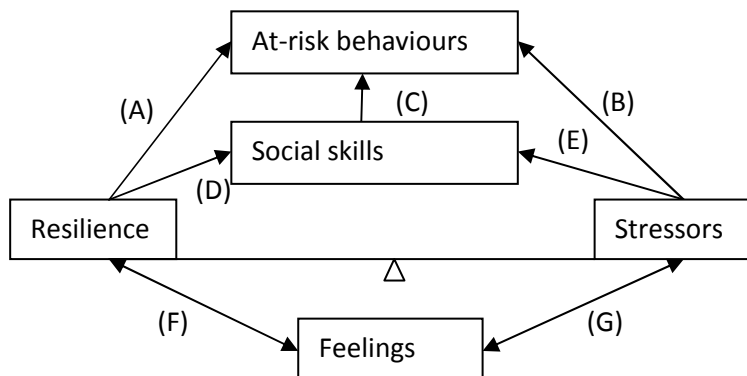
## Introduction

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 second level of analysis explores the links between the different constructs.



## **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 to 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.

### **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).

**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.



## Findings

### 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 persist 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

Comparison between housing types:

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.

## 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.

### 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 and Secondary 4 respondents, as compared to Secondary 1 or 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

#### 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.

#### 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 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

### 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.

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

### Comparisons across Secondary levels

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

Comparison between housing types:

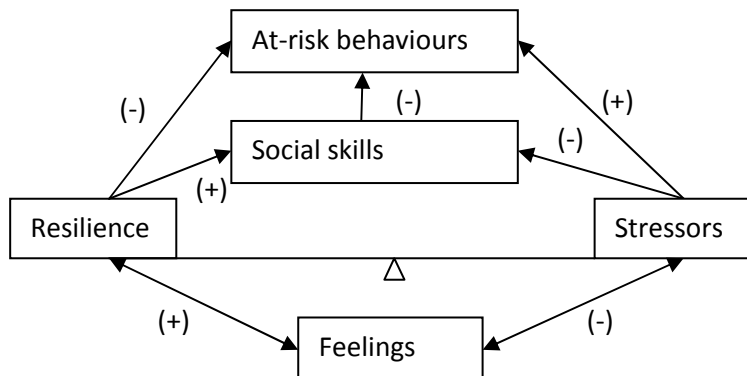
Respondents who live in rented HDB flats, as compared to respondents who live in landed property, were more likely report money as a source of stress.

Comparison between Nationality:

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

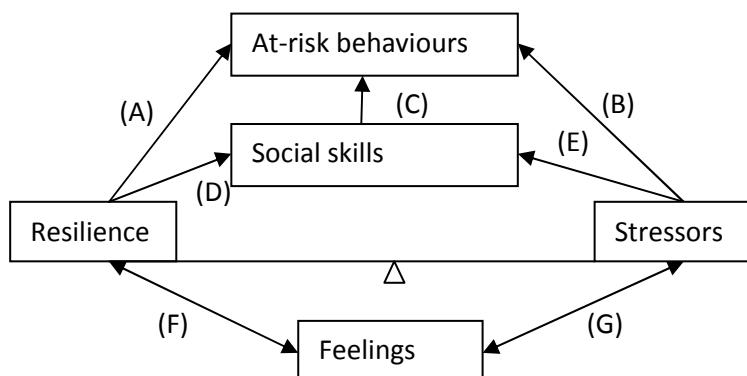
55% of Singaporeans reported school as a source of stress as compared to 59% of Permanent Residents and 39% of the Others.

## Conclusions (Correlations)



Pearson's Correlation analysis performed on the data collected indicated the above correlations between the constructs of at-risk behaviors, social skills, stressors, feelings and resilience. For example, there exists a negative linear relationship between the number of at-risk behaviors that students are willing to try and resilience scores.

As the diagram above displays, the correlations between the measured variables confirm earlier hypotheses from A through G (see below). 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, 1996; 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

<b>Normal Academic</b>	<b>Normal Technical</b>	<b>Express</b>
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 from schools, 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 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

<b>Lower Secondary (Sec 1-2, aged 12-15)</b>	<b>Upper Secondary (Sec 3-5, aged 14-16)</b>
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

<b>Males</b>	<b>Females</b>
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

<b>Chinese</b>	<b>Malay</b>	<b>Indians</b>
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:

- Alldinger, 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.nwrc.org/pub/library/ff\\_foster.pdf](http://www.nwrc.org/pub/library/ff_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