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# *Appendices*

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## Appendix - I

### INSTITUTIONAL HUMAN ETHICS COMMITTEE



### *Avinashilingam*

Institute for Home Science and Higher Education for Women  
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3  
of UGC Act 1956) Re-accredited with 'A+' Grade by NAAC.  
Recognised by UGC Under Section 12 B  
Coimbatore-641 043, Tamil Nadu, India

#### **Chairman**

Dr. S. Ramalingam  
Principal, PSG Institute  
of Medical Sciences  
& Research, Coimbatore

#### **Member Secretary**

Dr. S. Uma Mageshwari  
Professor & Head,  
Department of Food Service  
Management & Dietetics

#### **Members**

Mr. K. Arulmoli (Legal Expert)  
Dr. Subhashini K. Sripathi  
Dr. A. Saraswathy  
Ms. D. Kavitha  
Dr. S. Muthulakshmi  
Dr. G. Victoria Naomi  
Dr. Judith Justin  
Dr. Anitha Subash

20<sup>th</sup> January 2020

To  
Ms. Fenny Lefety Kharपुरi  
Department of Human Development  
Avinashilingam Institute for Home Science and  
Higher Education for Women  
Coimbatore - 641 043

Dear Fenny Lefety Kharपुरi.

Ref: Your proposal No. IHEC/19-20/HD/44 entitled "Risk and Resilient Factors of Youth" submitted for approval to the IHEC on 30.10.2019.

The Institutional Human Ethics Committee of our University hereby grants approval to your research proposal No. IHEC/19-20/HD/44 entitled "Risk and Resilient Factors of Youth" submitted by you. The Approval number for the same is AUW/ IHEC/HD-19-20/XP/44.

We wish you all the best in your research endeavours.

Regards,

*S. Uma Mageshwari*  
Dr. S. Uma Mageshwari  
Member Secretary



**Appendix – II**  
**Permission Letter- 1**



**RATHNAVEL SUBRAMANIAM COLLEGE OF ARTS & SCIENCE**  
(Autonomous)  
Re-accredited by NAAC with "A" Grade  
Affiliated to Bharathiar University, Coimbatore and approved by AICTE, New Delhi.



RVSCAS/stu.certi/2020

18.02.2020

**CERTIFICATE**

This is to certify that Ms.Fenny Leferty Kharpuri, a Ph.D. Research Scholar from Avinashilingam Institute for Home Science and Higher Education for Women is permitted to collect data from the students of Rathnavel Subramaniam College of Arts and Science, Sulur, Coimbatore to enable her to complete the Project work entitled "Determinants of Risk and resilience factors of youth "



  
18/2/20  
PRINCIPAL.

**PRINCIPAL**  
**RATHNAVEL SUBRAMANIAM**  
**College of Arts and Science**  
**(Autonomous)**  
**Sulur, Coimbatore - 641 402**

## Permission Letter - 2

He who plants a tree plants a hope

The trees are God's great alphabet



### K.S.G. COLLEGE OF ARTS AND SCIENCE

*For the ultimate learning experience*

S.F.No. 93, Kamaraj Road, Varadarajapuram, Near E.S.I Hospital,  
Uppilpalayam (Po), Coimbatore - 641015.

Web: [www.ksginstitutions.com](http://www.ksginstitutions.com) Email : [ksgprincipal@gmail.com](mailto:ksgprincipal@gmail.com), [ksgoff1@gmail.com](mailto:ksgoff1@gmail.com)

Phone : 0422-2574913, 2577136

Coimbatore,

14.10.2019.

From

Dr.B.Gunalan,  
The Prinicipal,  
K.S.G College of Arts and Science,  
Coimbatore - 15.

To

Dr.K.Arockia Maraichelvi,  
Head of the Department,  
Department of Human Development,  
Avinashilingam Institute for Home Science and Higher Education for Women,  
Coimbatore - 43.

Respected Madam,

**Sub: Permission Granted – Thesis work – reg.**

We permit, Miss Fenny Leferty Kharpuri ( 18PHHDF002), Ph.D scholar of Human Development under the guidance of Dr.Ramya Bhaskar, Avinashilingam Institute for Home Science and Higher Education for Women, to conduct a research study on the topic of “**Determinants of Risks and Resilience among Youth**” from our Institution.

Thanking You



Yours Sincerely,

*[Signature]*  
PRINCIPAL  
K.S.G. College Of Arts And Science  
COIMBATORE - 15

An ISO 9001:2015 Certified Institution  
Recognized under Section 2(f) & 12(B) of the UGC Act, 1956

### Permission Letter-3



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category 'A' by MHRD, Estd. 11/3 of UGC Act 1956)

Re-accredited with 'A++' Grade by NAAC, Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

Dr. Ramya Bhaskar  
M.Sc., M.Phil., Ph.D.  
Assistant Professor (SS)

Department of Human Development

e-mail-[ramya\\_hd@avinutv.ac.in](mailto:ramya_hd@avinutv.ac.in)

Mob.No:9901281603

To,  
The Principal  
Dr.G.R.Damodaran College of Science  
Coimbatore, Tamil Nadu

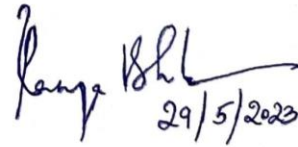
Subject: Request to conduct sensitization programme.


Dear Sir/Madam,

With regard to the subject above, I would like to inform you that, Miss Fenny Leferty Kharpuri a Ph.D scholar, Department of Human Development, Avinashilingam Institute for Home Science and Higher Education for Women, Supervised by Dr. Ramya Bhaskar want to conduct a sensitization program in your institute for under graduate students on "Risk and Resilience". I am writing this letter to ask for your permission for the same. This program will help the students to know about the risk and resilience in their youth life. I am planning to conduct this program by the end of June 2023. The sensitization program will be conducted based on the permission granted by you and time given from your side. The programme will be conducted without causing any disturbance to your regular activities. We request for 150 students.

Kindly accept our request and extend your support for the academic progress of the students.

Thanking you

  
29/5/2023

  
29/5/23

**PRINCIPAL**  
**Dr G R DAMODARAN COLLEGE OF SCIENCE**  
**(AUTONOMOUS)**  
**CIVIL AERODROME POST,**  
**AVANASHI ROAD,**  
**COIMBATORE - 641 014**

## Appendix - III

### A. Demographic Profile

**Direction:** The following are some items about your background information. Please indicate your response by checking or writing your appropriate answer (s).

#### Personal Background

1. Name of the institutions :

2. Age :

3. Gender : Male  Female

4. Educational qualification :

5. Type of family :

Joint family  Nuclear family

6. Area of Residence :

Urban  Rural  Semi urban

7. Family Background:- Mother and Father\*

Sl. No.	Name	Age	Educational Status	Occupational Status	Relation to the respondent

8. Family Income (Annually):

Less than 2 lakhs  2-5 lakhs  5- 10 lakhs

10-20 lakhs  20 lakhs above

## Appendix - IV

### The 2019 Youth Risk Behaviour Survey (YRBS)

**The next 4 questions ask about safety.**

1. How often do you wear a seat belt when **riding** in a car driven by someone else?
  - A. Never
  - B. Rarely
  - C. Sometimes
  - D. Most of the time
  - E. Always
  
2. During the past 30 days, how many times did you **ride** in a car or other vehicle **driven by someone who had been drinking alcohol**?
  - A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or more times
  
3. During the past 30 days, how many times did you **drive** a car or other vehicle **when you had been drinking alcohol**?
  - A. I did not drive a car or other vehicle during the past 30 days
  - B. 0 times
  - C. 1 time
  - D. 2 or 3 times
  - E. 4 or 5 times
  - F. 6 or more times

4. During the past 30 days, on how many days did you **text or e-mail** while **driving** a car or other vehicle?
- A. I did not drive a car or other vehicle during the past 30 days
  - B. 0 days
  - C. 1 or 2 days
  - D. 3 to 5 days
  - E. 6 to 9 days
  - F. 10 to 19 days
  - G. 20 to 29 days
  - H. All 30 days

**The next 11 questions ask about violence-related behaviors.**

5. During the past 30 days, on how many days did you carry **a weapon** such as a gun, knife, or club?
- A. 0 days
  - B. 1 day
  - C. 2 or 3 days
  - D. 4 or 5 days
  - E. 6 or more days
6. During the past 30 days, on how many days did you carry **a weapon** such as a gun, knife, or club **on school property**?
- A. 0 days
  - B. 1 day
  - C. 2 or 3 days
  - D. 4 or 5 days
  - E. 6 or more days

7. **During the past 12 months**, on how many days did you carry a **gun**? (Do **not** count the days when you carried a gun only for hunting or for a sport, such as target shooting.)
- A. 0 days
  - B. 1 day
  - C. 2 or 3 days
  - D. 4 or 5 days
  - E. 6 or more days
8. During the past 30 days, on how many days did you **not** go to school because you felt you would be unsafe at school or on your way to or from school?
- A. 0 days
  - B. 1 day
  - C. 2 or 3 days
  - D. 4 or 5 days
  - E. 6 or more days
9. During the past 12 months, how many times has someone threatened or injured you with a **weapon** such as a gun, knife, or club **on school property**?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or 7 times
  - F. 8 or 9 times
  - G. 10 or 11 times
  - H. 12 or more times

10. During the past 12 months, how many times were you in a **physical fight**?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or 7 times
  - F. 8 or 9 times
  - G. 10 or 11 times
  - H. 12 or more times
11. During the past 12 months, how many times were you in a **physical fight on school property**?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or 7 times
  - F. 8 or 9 times
  - G. 10 or 11 times
  - H. 12 or more times
12. Have you ever been physically forced to have sexual intercourse when you did not want to?
- A. Yes
  - B. No

13. During the past 12 months, how many times did **anyone** force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or more times
14. During the past 12 months, how many times did **someone you were dating or going out with** force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)
- A. I did not date or go out with anyone during the past 12 months
  - B. 0 times
  - C. 1 time
  - D. 2 or 3 times
  - E. 4 or 5 times
  - F. 6 or more times
15. During the past 12 months, how many times did **someone you were dating or going out with** physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an object or weapon.)
- A. I did not date or go out with anyone during the past 12 months
  - B. 0 times
  - C. 1 time
  - D. 2 or 3 times
  - E. 4 or 5 times
  - F. 6 or more times

**The next 2 questions ask about bullying. Bullying is when 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way.**

16. During the past 12 months, have you ever been bullied **on school property**?
- A. Yes
  - B. No
17. During the past 12 months, have you ever been **electronically** bullied? (Count being bullied through texting, Instagram, Facebook, or other social media.)
- A. Yes
  - B. No

**The next 5 questions ask about sad feelings and attempted suicide. Sometimes people feel so depressed about the future that they may consider attempting suicide, that is, taking some action to end their own life.**

18. During the past 12 months, did you ever feel so sad or hopeless almost every day for **two weeks or more in a row** that you stopped doing some usual activities?
- A. Yes
  - B. No
19. During the past 12 months, did you ever **seriously** consider attempting suicide?
- A. Yes
  - B. No
20. During the past 12 months, did you make a plan about how you would attempt suicide?
- A. Yes
  - B. No
21. During the past 12 months, how many times did you actually attempt suicide?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or more times

22. **If you attempted suicide** during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?
- A. **I did not attempt suicide** during the past 12 months
  - B. Yes
  - C. No

**The next 4 questions ask about cigarette smoking.**

23. Have you ever tried cigarette smoking, even one or two puffs?
- A. Yes
  - B. No
24. How old were you when you first tried cigarette smoking, even one or two puffs?
- A. I have never tried cigarette smoking, not even one or two puffs
  - B. 8 years old or younger
  - C. 9 or 10 years old
  - D. 11 or 12 years old
  - E. 13 or 14 years old
  - F. 15 or 16 years old
  - G. 17 years old or older
25. During the past 30 days, on how many days did you smoke cigarettes?
- A. 0 days
  - B. 1 or 2 days
  - C. 3 to 5 days
  - D. 6 to 9 days
  - E. 10 to 19 days
  - F. 20 to 29 days
  - G. All 30 days

26. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?

A. I did not smoke cigarettes during the past 30 days

B. Less than 1 cigarette per day

C. 1 cigarette per day

D. 2 to 5 cigarettes per day

E. 6 to 10 cigarettes per day

F. 11 to 20 cigarettes per day

G. More than 20 cigarettes per day

**The next 3 questions ask about electronic vapor products, such as JUUL, Vuse, MarkTen, and blu. Electronic vapor products include e-cigarettes, vapes, vape pens, e-cigars, e- hookahs, hookah pens, and mods.**

27. Have you ever used an electronic vapor product?

A. Yes

B. No

28. During the past 30 days, on how many days did you use an electronic vapor product?

A. 0 days

B. 1 or 2 days

C. 3 to 5 days

D. 6 to 9 days

E. 10 to 19 days

F. 20 to 29 days

G. All 30 days

29. During the past 30 days, how did you **usually** get your own electronic vapor products?  
(Select only **one** response.)

- A. I did not use any electronic vapor products during the past 30 days
- B. I bought them in a store such as a convenience store, supermarket, discount store, gas station, or vape store
- C. I got them on the Internet
- D. I gave someone else money to buy them for me
- E. I borrowed them from someone else
- F. A person who can legally buy these products gave them to me
- G. I took them from a store or another person
- H. I got them some other way

**The next 3 questions ask about other tobacco products.**

30. During the past 30 days, on how many days did you use **chewing tobacco, snuff, dip, snus, or dissolvable tobacco products**, such as Copenhagen, Grizzly, Skoal, or Camel Snus? (Do not count any electronic vapor products.)

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

31. During the past 30 days, on how many days did you smoke **cigars, cigarillos, or little cigars?**

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

32. During the past 12 months, did you ever try **to quit** using **all** tobacco products, including cigarettes, cigars, smokeless tobacco, shisha or hookah tobacco, and electronic vapor products?

- A. I did not use any tobacco products during the past 12 months
- B. Yes
- C. No

**The next 5 questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.**

33. How old were you when you had your first drink of alcohol other than a few sips?

- A. I have never had a drink of alcohol other than a few sips
- B. 8 years old or younger
- C. 9 or 10 years old
- D. 11 or 12 years old
- E. 13 or 14 years old
- F. 15 or 16 years old
- G. 17 years old or older

34. During the past 30 days, on how many days did you have at least one drink of alcohol?
- A. 0 days
  - B. 1 or 2 days
  - C. 3 to 5 days
  - D. 6 to 9 days
  - E. 10 to 19 days
  - F. 20 to 29 days
  - G. All 30 days
35. During the past 30 days, on how many days did you have **4** or more drinks of alcohol in a row, that is, within a couple of hours (if you are **female**) or **5** or more drinks of alcohol in a row, that is, within a couple of hours (if you are **male**)?
- A. 0 days
  - B. 1 day
  - C. 2 days
  - D. 3 to 5 days
  - E. 6 to 9 days
  - F. 10 to 19 days
  - G. 20 or more days
36. During the past 30 days, what is the largest number of alcoholic drinks you had in a row, that is, within a couple of hours?
- A. I did not drink alcohol during the past 30 days
  - B. 1 or 2 drinks
  - C. 3 drinks
  - D. 4 drinks
  - E. 5 drinks
  - F. 6 or 7 drinks
  - G. 8 or 9 drinks
  - H. 10 or more drinks

37. During the past 30 days, how did you **usually** get the alcohol you drank?
- A. I did not drink alcohol during the past 30 days
  - B. I bought it in a store such as a liquor store, convenience store, supermarket, discount store, or gas station
  - C. I bought it at a restaurant, bar, or club
  - D. I bought it at a public event such as a concert or sporting event
  - E. I gave someone else money to buy it for me
  - F. Someone gave it to me
  - G. I took it from a store or family member
  - H. I got it some other way

**The next 3 questions ask about marijuana use. Marijuana also is called pot, weed, or cannabis.**

38. During your life, how many times have you used marijuana?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 to 99 times
  - G. 100 or more times
39. How old were you when you tried marijuana for the first time?
- A. I have never tried marijuana
  - B. 8 years old or younger
  - C. 9 or 10 years old
  - D. 11 or 12 years old
  - E. 13 or 14 years old
  - F. 15 or 16 years old
  - G. 17 years old or older
  - H.

40. During the past 30 days, how many times did you use marijuana?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

**The next question asks about synthetic marijuana use. Synthetic marijuana also is called Spice, fake weed, K2, King Kong, Yucatan Fire, or Skunk.**

41. During your life, how many times have you used synthetic marijuana?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

**The next 2 questions ask about the use of prescription pain medicine without a doctor's prescription or differently than how a doctor told you to use it. For these questions, count drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet.**

42. During your life, how many times have you taken **prescription pain medicine** without a doctor's prescription or differently than how a doctor told you to use it?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

43. During the past 30 days, how many times have you taken **prescription pain medicine** without a doctor's prescription or differently than how a doctor told you to use it?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times

**The next 9 questions ask about other drugs.**

44. During your life, how many times have you used **any** form of cocaine, including powder, crack, or freebase?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
45. During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times

46. During your life, how many times have you used **heroin** (also called smack, junk, or China White)?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

47. During your life, how many times have you used **methamphetamines** (also called speed, crystal meth, crank, ice, or meth)?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

48. During your life, how many times have you used **ecstasy** (also called MDMA)?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

49. During your life, how many times have you used **hallucinogenic drugs**, such as LSD, acid, PCP, angel dust, mescaline, or mushrooms?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
50. During your life, how many times have you taken **steroid pills or shots** without a doctor's prescription?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
51. During your life, how many times have you used a needle to inject any **illegal** drug into your body?
- A. 0 times
  - B. 1 time
  - C. 2 or more times
52. During the past 12 months, has anyone offered, sold, or given you an illegal drug **on school property**?
- A. Yes
  - B. No

**The next 9 questions ask about sexual behavior.**

53. Have you ever had sexual intercourse?

A. Yes

B. No

54. How old were you when you had sexual intercourse for the first time?

A. I have never had sexual intercourse

B. 11 years old or younger

C. 12 years old

D. 13 years old

E. 14 years old

F. 15 years old

G. 16 years old

H. 17 years old or older

55. During your life, with how many people have you had sexual intercourse?

A. I have never had sexual intercourse

B. 1 person

C. 2 people

D. 3 people

E. 4 people

F. 5 people

G. 6 or more people

56. During the past 3 months, with how many people did you have sexual intercourse?

A. I have never had sexual intercourse

B. I have had sexual intercourse, but not during the past 3 months

C. 1 person

- D. 2 people
- E. 3 people
- F. 4 people
- G. 5 people
- H. 6 or more people

57. Did you drink alcohol or use drugs before you had sexual intercourse the **last time**?

- A. I have never had sexual intercourse
- B. Yes
- C. No

58. The **last time** you had sexual intercourse, did you or your partner use a condom?

- A. I have never had sexual intercourse
- B. Yes
- C. No

59. The **last time** you had sexual intercourse, what **one** method did you or your partner use to **prevent pregnancy**? (Select only **one** response.)

- A. I have never had sexual intercourse
- B. No method was used to prevent pregnancy
- C. Birth control pills
- D. Condoms
- E. An IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon)
- F. A shot (such as Depo-Provera), patch (such as Ortho Evra), or birth control ring (such as NuvaRing)
- G. Withdrawal or some other method
- H. Not sure

60. During your life, with whom have you had sexual contact?

- A. I have never had sexual contact
- B. Females
- C. Males
- D. Females and males

61. Which of the following best describes you?

- A. Heterosexual (straight)
- B. Gay or lesbian
- C. Bisexual
- D. Not sure

**The next 2 questions ask about body weight.**

62. How do **you** describe your weight?

- A. Very underweight
- B. Slightly underweight
- C. About the right weight
- D. Slightly overweight
- E. Very overweight

63. Which of the following are you trying to do about your weight?

- A. **Lose** weight
- B. **Gain** weight
- C. **Stay** the same weight
- D. I am **not trying to do anything** about my weight

**The next 12 questions ask about food you ate or drank during the past 7 days. Think about all the meals and snacks you had from the time you got up until you went to bed. Be sure to include food you ate at home, at school, at restaurants, or anywhere else.**

64. During the past 7 days, how many times did you drink **100% fruit juices** such as orange juice, apple juice, or grape juice? (Do **not** count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)

- A. I did not drink 100% fruit juice during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

65. During the past 7 days, how many times did you eat **fruit**? (Do **not** count fruit juice.)

- A. I did not eat fruit during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

66. During the past 7 days, how many times did you eat **green salad**?

- A. I did not eat green salad during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

67. During the past 7 days, how many times did you eat **potatoes**? (Do **not** count french fries, fried potatoes, or potato chips.)

- A. I did not eat potatoes during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

68. During the past 7 days, how many times did you eat **carrots**?

- A. I did not eat carrots during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

69. During the past 7 days, how many times did you eat **other vegetables**? (Do **not** count green salad, potatoes, or carrots.)

- A. I did not eat other vegetables during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

70. During the past 7 days, how many times did you drink a **can, bottle, or glass of soda or pop**, such as Coke, Pepsi, or Sprite? (Do **not** count diet soda or diet pop.)
- A. I did not drink soda or pop during the past 7 days
  - B. 1 to 3 times during the past 7 days
  - C. 4 to 6 times during the past 7 days
  - D. 1 time per day
  - E. 2 times per day
  - F. 3 times per day
  - G. 4 or more times per day
71. During the past 7 days, how many times did you drink a **can, bottle, or glass of a sports drink** such as Gatorade or Powerade? (Do **not** count low-calorie sports drinks such as Propel or G2.)
- A. I did not drink sports drinks during the past 7 days
  - B. 1 to 3 times during the past 7 days
  - C. 4 to 6 times during the past 7 days
  - D. 1 time per day
  - E. 2 times per day
  - F. 3 times per day
  - G. 4 or more times per day
72. During the past 7 days, how many times did you drink a **bottle or glass of plain water**? (Count tap, bottled, and unflavored sparkling water.)
- A. I did not drink water during the past 7 days
  - B. 1 to 3 times during the past 7 days
  - C. 4 to 6 times during the past 7 days
  - D. 1 time per day
  - E. 2 times per day
  - F. 3 times per day
  - G. 4 or more times per day

73. During the past 7 days, how many **glasses of milk** did you drink? (Count the milk you drank in a glass or cup, from a carton, or with cereal. Count the half pint of milk served at school as equal to one glass.)

- A. I did not drink milk during the past 7 days
- B. 1 to 3 glasses during the past 7 days
- C. 4 to 6 glasses during the past 7 days
- D. 1 glass per day
- E. 2 glasses per day
- F. 3 glasses per day
- G. 4 or more glasses per day

74. During the past 7 days, on how many days did you eat **breakfast**?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days
- G. 6 days
- H. 7 days

75. Are there any foods that you have to avoid because eating the food could cause an allergic reaction, such as skin rashes, swelling, itching, vomiting, coughing, or trouble breathing?

- A. Yes
- B. No
- C. Not sure

**The next 6 questions ask about physical activity.**

76. During the past 7 days, on how many days were you physically active for a total of **at least 60 minutes per day**? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days
- G. 6 days
- H. 7 days

77. During the past 7 days, on how many days did you do exercises to **strengthen or tone your muscles**, such as push-ups, sit-ups, or weight lifting?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days
- G. 6 days
- H. 7 days

78. On an average school day, how many hours do you watch TV?

- A. I do not watch TV on an average school day
- B. Less than 1 hour per day
- C. 1 hour per day

- D. 2 hours per day
- E. 3 hours per day
- F. 4 hours per day
- G. 5 or more hours per day

79. On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work? (Count time spent playing games, watching videos, texting, or using social media on your smartphone, computer, Xbox, PlayStation, iPad, or other tablet.)

- A. I do not play video or computer games or use a computer for something that is not school work
- B. Less than 1 hour per day
- C. 1 hour per day
- D. 2 hours per day
- E. 3 hours per day
- F. 4 hours per day
- G. 5 or more hours per day

80. In an average week when you are in school, on how many days do you go to physical education (PE) classes?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days

81. During the past 12 months, on how many sports teams did you play? (Count any teams run by your school or community groups.)

- A. 0 teams
- B. 1 team
- C. 2 teams
- D. 3 or more teams

**The next question asks about concussions. A concussion is when a blow or jolt to the head causes problems such as headaches, dizziness, being dazed or confused, difficulty remembering or concentrating, vomiting, blurred vision, or being knocked out.**

82. During the past 12 months, how many times did you have a concussion **from playing a sport or being physically active?**

- A. 0 times
- B. 1 time
- C. 2 times
- D. 3 times
- E. 4 or more times

**The next 10 questions ask about other health-related topics.**

83. Have you ever been tested for HIV, the virus that causes AIDS? (Do **not** count tests done if you donated blood.)

- A. Yes
- B. No
- C. Not sure

84. During the past 12 months, have you been tested for a sexually transmitted disease (STD) other than HIV, such as chlamydia or gonorrhea?

- A. Yes
- B. No
- C. Not sure

85. During the past 12 months, how many times did you use an indoor tanning device such as a sunlamp, sunbed, or tanning booth? (Do **not** count getting a spray-on tan.)
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
86. When you are outside for more than one hour on a sunny day, how often do you wear sunscreen with an SPF of 15 or higher?
- A. Never
  - B. Rarely
  - C. Sometimes
  - D. Most of the time
  - E. Always
87. When was the last time you saw a dentist for a check-up, exam, teeth cleaning, or other dental work?
- A. During the past 12 months
  - B. Between 12 and 24 months ago
  - C. More than 24 months ago
  - D. Never
  - E. Not sure
88. Has a doctor or nurse ever told you that you have asthma?
- A. Yes
  - B. No
  - C. Not sure

89. On an average school night, how many hours of sleep do you get?
- A. 4 or less hours
  - B. 5 hours
  - C. 6 hours
  - D. 7 hours
  - E. 8 hours
  - F. 9 hours
  - G. 10 or more hours
90. During the past 12 months, how would you describe your grades in school?
- A. Mostly A's
  - B. Mostly B's
  - C. Mostly C's
  - D. Mostly D's
  - E. Mostly F's
  - F. None of these grades
  - G. Not sure
91. Because of a physical, mental, or emotional problem, do you have serious difficulty concentrating, remembering, or making decisions?
- A. Yes
  - B. No
92. How well do you speak English?
- A. Very well
  - B. Well
  - C. Not well
  - D. Not at all

**This is the end of the survey.**

**Thank you very much for your help.**

## Appendix- V

### The 2017 Resilient Scale

Please read the following statements. To the right of each you will find five numbers, ranging from "1" (never), "2" (Rarely), "3" (Sometimes), "4" (Often), "5" (Always).

Circle the number which best indicates your feelings about that statement.

**FYI:5=Always 4=Often 3=Sometimes 2=Rarely 1=Never**

#### SELF BELIEF

1	I am confident in coping with challenging situations	5	4	3	2	1
2	I often feel like a victim or no control over what happens to myself	5	4	3	2	1
3	I trust my intuition	5	4	3	2	1
4	I certainly feel useless at times	5	4	3	2	1
5	Challenging situations make me feel less comfortable	5	4	3	2	1
6	I have a vision for my life that gives it meaning and purpose.	5	4	3	2	1
7	I know what is important to me and use this knowledge in making decisions.	5	4	3	2	1
8	I am inclined to feel i am failure	5	4	3	2	1
9	I feel i have a number of good qualities	5	4	3	2	1
10	I don't like myself very much and never have	5	4	3	2	1

#### OPTIMISM

1	I'm always optimistic about my future	5	4	3	2	1
2	I take a positive attitude towards myself	5	4	3	2	1
3	Overall, I expect more good things to happen to me than bad.	5	4	3	2	1
4	I have faced situations that I tend to feel less optimistic but still I have overcome	5	4	3	2	1
5	I do feel this optimism has positive impact on the work I do	5	4	3	2	1
6	I generally approach life as an optimist.	5	4	3	2	1
7	When good things happen in the world, I have a more positive outlook on life	5	4	3	2	1
8	In uncertain times, I usually expect the best	5	4	3	2	1
9	I have trust and faith in people	5	4	3	2	1
10	Any situation with negative vibes doesn't affect my motivation	5	4	3	2	1

### PURPOSEFUL DIRECTION

1	I set specific goals for myself in works I do	5	4	3	2	1
2	I can go to any extent in achieving my set goals	5	4	3	2	1
3	Goals are important to me	5	4	3	2	1
4	I work towards my goals without getting deviated	5	4	3	2	1
5	Setting goals for myself has led me to achievements	5	4	3	2	1
6	I know my own values	5	4	3	2	1
7	It's all about my achievements	5	4	3	2	1
8	I love to learn something new that set a right direction towards my goal	5	4	3	2	1
9	I feel proud that I have accomplished things in life till date	5	4	3	2	1
10	I learned a lot from my experiences and I use them as a guide for decisions I make	5	4	3	2	1

### ADAPTABILITY

1	I find it difficult to adapt when situations change rapidly	5	4	3	2	1
2	It's challenging for me to change my behaviour	5	4	3	2	1
3	I get frustrated when plans changed	5	4	3	2	1
4	I tend to avoid conflicts	5	4	3	2	1
5	I feel life have ups and downs and does not always go as I would like it to	5	4	3	2	1
6	I can get through difficult times because I've experienced difficulties before.	5	4	3	2	1
7	Sometimes I make myself do things whether I want to or not.	5	4	3	2	1
8	When I'm in a difficult situation, I can usually find my way out of it.	5	4	3	2	1
9	I feel it's okay if there are people who don't like me.	5	4	3	2	1
10	I tend to cope up with my stress level	5	4	3	2	1

## INGENUITY

1	I feel I can come up with clever solutions to problems	5	4	3	2	1
2	I tend to solve problems better in group	5	4	3	2	1
3	I tend to solve problems better as an individual	5	4	3	2	1
4	Create solutions and products to solve own and others' problems	5	4	3	2	1
5	I have a personal involvement as an innovator, creator and developer	5	4	3	2	1
6	My life has meaning.	5	4	3	2	1
7	I'm good at finding solutions to any problems	5	4	3	2	1
8	I have self-discipline.	5	4	3	2	1
9	I am friends with myself.	5	4	3	2	1
10	Strong as an ox- I can survive anything	5	4	3	2	1

## CHALLENGE ORIENTATION

1	I actively seek out difficult challenges which are outside my comfort zone	5	4	3	2	1
2	There are certain situations which I tend to avoid taking on a challenge	5	4	3	2	1
3	I make my own assessment of my team's effectiveness.	5	4	3	2	1
4	I always ask myself, "How can i do better tomorrow than what I did today?"	5	4	3	2	1
5	I focus on big-picture strategic issues as much as on day-to-day activities.	5	4	3	2	1
6	I have enough energy to do what I have to do.	5	4	3	2	1
7	When I make plans, I follow through with them.	5	4	3	2	1
8	I am able to depend on myself more than anyone else	5	4	3	2	1
9	I would rather excel in my field	5	4	3	2	1
10	I would like to organize myself and others to win	5	4	3	2	1

### EMOTION REGULATION

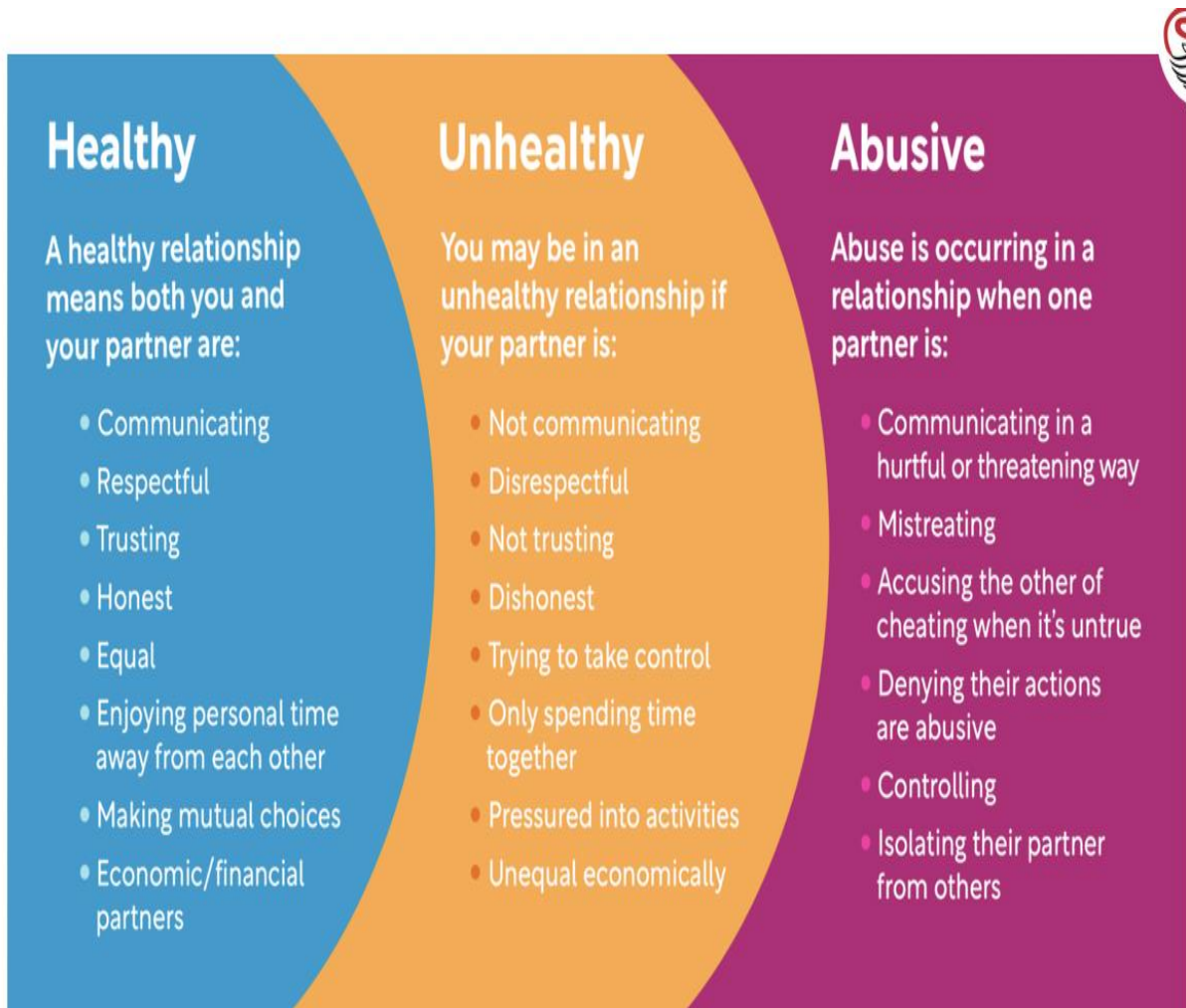
1	I keep control of my emotions when faced with stressful and demanding situations.	5	4	3	2	1
2	I keep attention on pleasant thoughts after the occurrence of negative events.	5	4	3	2	1
3	I accept and not change a negative situation or the emotions caused.	5	4	3	2	1
4	Refocus – thinking about what steps to take and how to handle the negative event.	5	4	3	2	1
5	I look for other people to offer me compassion when I'm upset.	5	4	3	2	1
6	It makes me feel better to learn how others dealt with their emotions.	5	4	3	2	1
7	I can overcome painful childhood memories and lessen the influence on my behaviour and emotions	5	4	3	2	1
8	I get angry and frustrated when I think about the most difficult times I have faced in the past	5	4	3	2	1
9	I'm very vulnerable	5	4	3	2	1
10	When I want to feel less negative emotion, I change the way I'm thinking about the situation	5	4	3	2	1

### SUPPORT SEEKING

1	I have people at work that i usually discuss my problems and Issues with	5	4	3	2	1
2	I find it more difficult to seek support from others	5	4	3	2	1
3	I prefer to work through issues alone	5	4	3	2	1
4	I am comfortable talking to others about my issues	5	4	3	2	1
5	Importance of informal supports	5	4	3	2	1
6	I worry about what is going to happen	5	4	3	2	1
7	I love to talk to someone who could help me figure out what to do in help	5	4	3	2	1
8	I think I can't handle things better myself	5	4	3	2	1
9	I feel like nothing I do helps anymore	5	4	3	2	1
10	Bad things are usually my fault	5	4	3	2	1

## Appendix VI

### Depicting the Relationship Spectrum Chart



## Appendix VII

### Illustrating the Various Types of Addictions



## Appendix VIII

### Quiz Activity on Self-Love

*Self - Love*

#### **FIND YOURSELF**

**1. What's my risk in self?**

**2. Am I in a abusive relationship?**

**3. Where I have to improve?**

**4. What does the word "happiness" means to me?**

## Appendix IX

### A Guide to Facing Life's Challenges



## Resilience

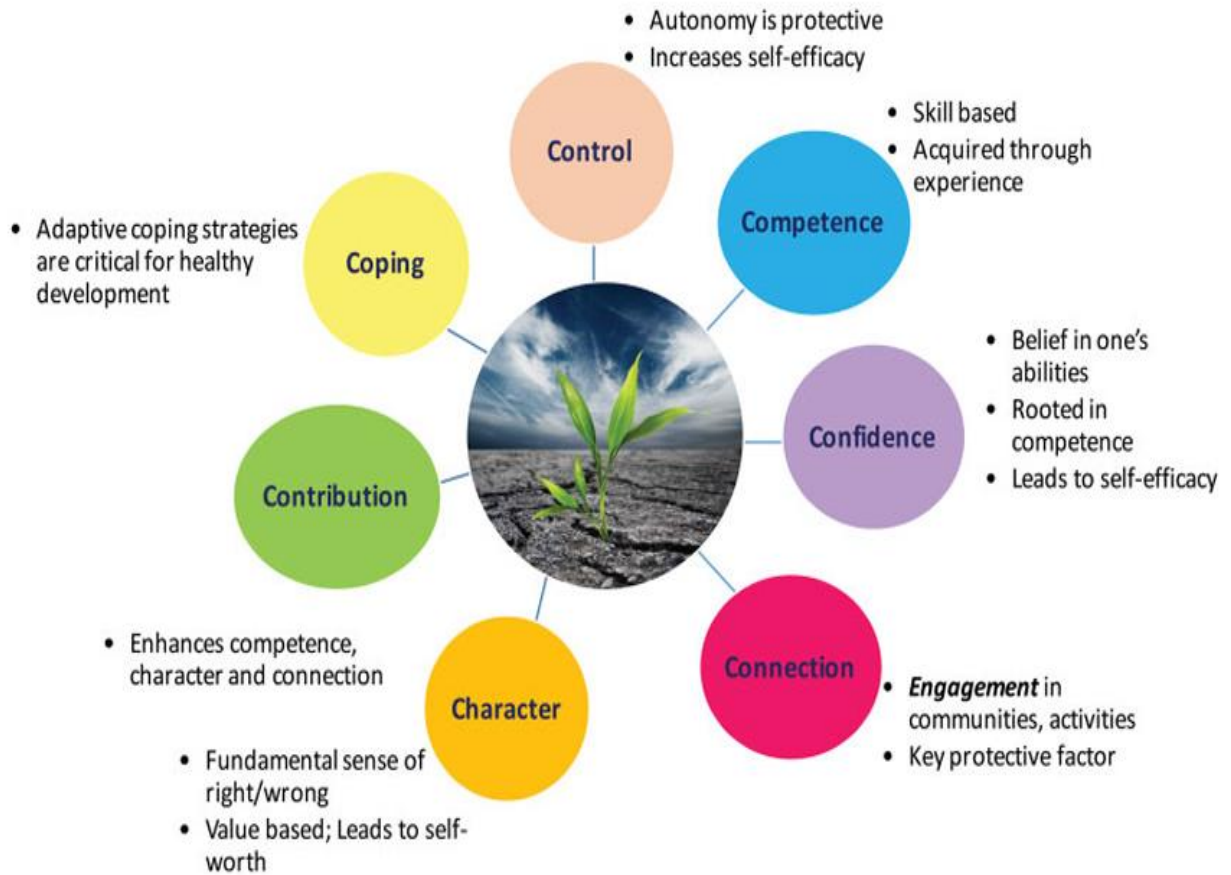
### **resilience:**

"an ability to recover from or adjust easily to misfortune or change."

## Appendix - X

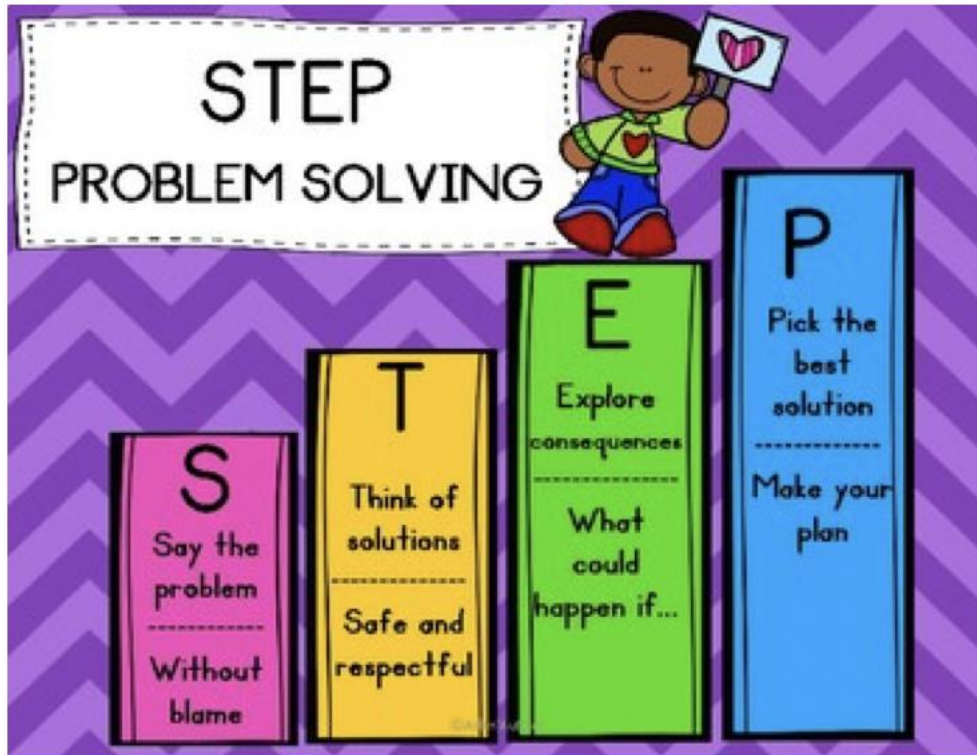
### The Essential Building Blocks of Resilience

# 7 C's Model of Resilience



## Appendix XI

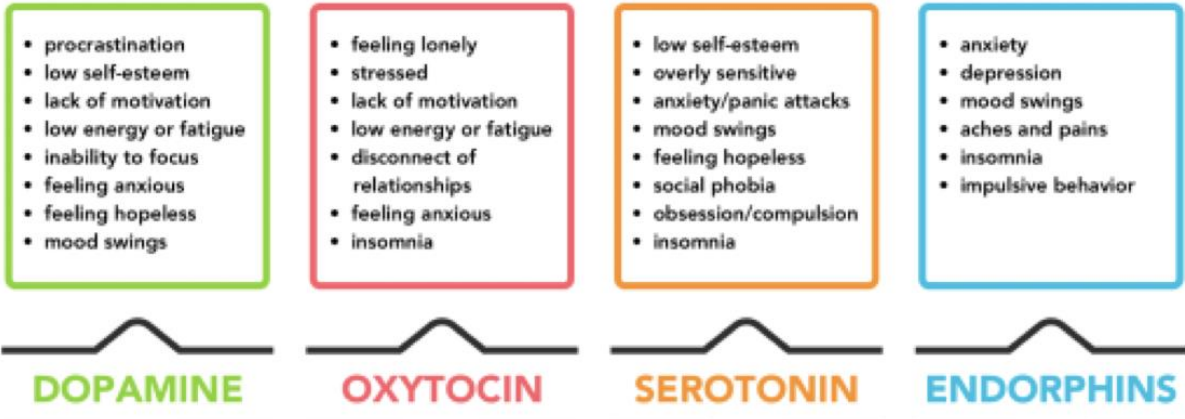
### Depicting the Steps involved in Problem Solving



## Appendix XII

### Depicting How Brain Chemicals Influence Mood and Health

#### How Deficiency Affects You



#### How to Increase Happiness Levels



# Appendix XIII

## Depicting Good Sleep for Good Health

# TIPS FOR HEALTHY SLEEP



Ms. Hema V., Clinical Psychologist, AGAM- The Mind Care Centre

Appendix XIV

Activity: Name Personality Test

**WRITE YOUR NAME IN VERTICAL ORDER &  
WRITE A WORD REFLECTING YOUR  
PERSONALITY**

**H**

**H**appy

**E**

**E**nthusiastic

**M**

**M**indful

**A**

**A**ffectionate

## Appendix XV

### Activity: Naming Feelings

We all have feelings. And all feelings are okay. Today we're going to practice naming feelings. 

The more feelings you know, the easier it is to name them.

Let's think of feelings for each of the difficult situations you're dealing with now.

DIFFICULT SITUATION	FEELINGS RELATED TO IT	PERCENTAGE



## Appendix XVII

### Art Therapy: Outside and Inside Mask

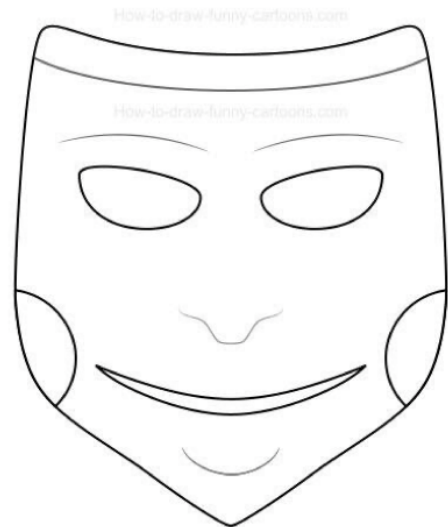
#### OUTSIDE MASK:

- Put the faces you show your friends, family, teachers.
- You can show these behaviours any way you like—with pictures, poetry, colours, words/slogans/phrases, etc.



#### INSIDE MASK:

- On the inside of the mask, show who you really are.
- Again, you may illustrate your true self any way you like—with pictures, poetry, colours, words/slogans/phrases, etc.



## Appendix XVIII

### Simulation Exercise: Nails in the Fence

There once was a little boy who had a bad temper. His father gave him a bag of nails and told him that every time he lost his temper, he must hammer a nail into the back of the fence.

The first day the boy had driven 37 nails into the fence. Over the next few weeks, as he learned to control his anger, the number of nails hammered daily gradually dwindled down. He discovered it was easier to hold his temper than to drive those nails into the fence.

Finally the day came when the boy didn't lose his temper at all. He told his father about it and the father suggested that the boy now pull out one nail for each day that he was able to hold his temper. The days passed and the young boy was finally able to tell his father that all the nails were gone.

The father took his son by the hand and led him to the fence. He said, "You have done well, my son, but look at the holes in the fence. The fence will never be the same. When you say things in anger, they leave a scar just like this one. You can put a knife in a man and draw it out. It won't matter how many times you say I'm sorry, the wound is still there."

The little boy then understood how powerful his words were. He looked up at his father and said "I hope you can forgive me father for the holes I put in you."

"Of course I can," said the father.

## Appendix XIX

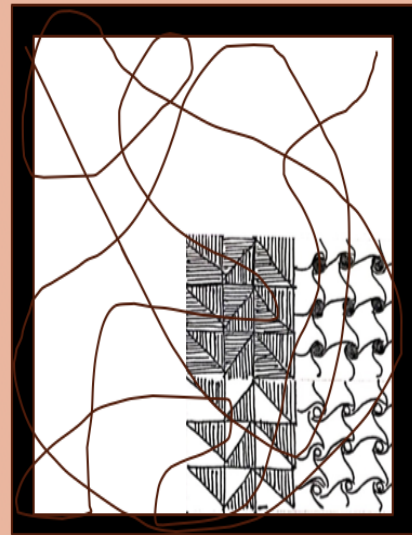
### Meditative Drawing Activity: Zentangle Method

In freehand, using a pencil, lightly draw a square & then border around the inside edge of the square.

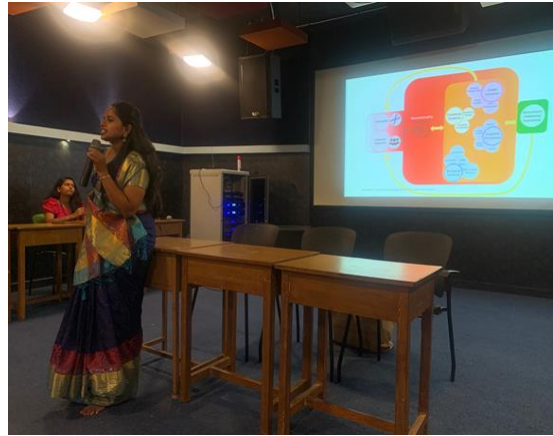
**Draw a string-** Take your pencil and draw a "string" inside the border. According to the Zentangle Method, a string is a curved line or squiggle that will lend structure to your design.

**Start creating a tangle-** A "tangle" is a pattern drawn in pen along the contours of a string.

## YOUR PAPER



**Appendix XX**  
**A Glimpse of the Sensitisation Programme**



## *Publications*

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**Avinashilingam Institute for Home Science and Higher Education for Women**

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD  
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC  
Coimbatore - 641 043, Tamil Nadu, India

**Appendix L2**

**(Item No 5 of  
Check List) Details of Research  
Publications**

S.No	Article	Journal	Other Details Vol/No/Page No/ Year	Published in UGC- CARE / Scopus Indexed/ Web of Science
1	Influence of Socio Demographic Variables on Violent Behaviour Among Youth	Studies on Ethno-Medicine	Volume No-18 Issue No 2 Page No 81-88 2024	Scopus Indexed
2	A Study Exploring Relationship Between Risk Factors and Resilience Among Youth	Indian Journal of Psychiatric Nursing	Volume No- 21 Issue No 1 Page No 50-57 2024	UGC-CARE I ✓
3	Explorative Study on Risks and Resilience Among Youth- An Analysis of Sensitization Programme	The Indian Journal of Home Science	Volume No-36 Issue No 2 Page No 418-429 2024	UGC-CARE I ✓

\*Proof of list of Journals from Internet to be attached along with copies of reprints.

Scholar

: Fenny. Neferty Scharpuni

Supervisor

: Jaya Kshk  
21/1/25

Checked By:

Jaya Kshk  
21/1/25  
HOD i/c

  
21-1-2025  
Dean of Respective School

The scholar Miss. Fenny Leferty Kharfuri (18PHHDF002) has published her research articles in the following journals:

1. Studies on Ethno-Medicine - indexed and active in Scopus from 2009 to 2024,
2. Indian Journal of Psychiatric Nursing - indexed and active in UGC Care Group I from July 2020 to present.

This may be considered.

J. J. Billi  
21.01.25  
Asst. Librarian

## Original Article

# A Study Exploring Relationship between Risk Factors and Resilience among Youth

Fenny Leferty Kharपुरi, Ramya Bhaskar

Department of Human Development, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, Tamil Nadu, India

### ABSTRACT

**Background:** “Youth” is best understood as a period of transition from the dependence of childhood to adulthood’s independence. Of the 1.2 billion people live in India, 54% are <24 years of age. These young people are the futures of tomorrow. However, their lives today are ridden with anxieties, depressions, identity crisis, relationship break downs, conflicts, stress, and sensuality. Youth live in a society serene of a number of social spheres that influence their belief, attitudes, and behavior where the effect of risk behavior among youth can be seen in them being reckless. Youth lifestyles are of concern. Determining the risk behaviors in this age group is important for understanding how hazardous behavior shape their adult outcomes and identify resilience that will help them make better decisions and enhance the existing protective factors. **Aim:** This study aims to assess the relationship between risk behaviors and resilience among youths in the city of Coimbatore. **Setting and Design:** A cross-sectional study was conducted on youth from schools and colleges, selected by random sampling, in Coimbatore city of Tamil Nadu. **Methodology:** One thousand seven hundred and ten youth studying in various schools and colleges ( $F = 799$  and  $M = 911$ ) aged between 18 and 22 years were selected randomly for this study. Youth Risk Behavior Scale and Resilience Scale were administered to elicit the information from the selected youth. **Statistical Analysis Used:** The frequency and percentage were calculated to assess the level of risk behavior and resilience among youth. Canonical correlation analysis was applied to identify the significant relationship of risk with the resilient factors among youth. The data were subjected to the statistical analysis through SPSS 19. **Results:** The results highlighted that smoking, tobacco, alcohol, and self-medication risks were higher and all the aspects of resilience except for adaptability were found to be lower among youth. The “canonical correlation analysis” resulted in four canonical functions and where collectively the full model was statistically significant  $f(40, 7399) = 7.137, P = 0.000$ . These results emphasized the differential impact of risk on resilience among youth and in their functioning. **Conclusions:** The study emphasizes the differential impact of risk and resilience on the different aspects of youth functioning and supports the need for specificity in resilience research. Resilience can be practiced and youth may be educated to be resilient. Attention to risk factors at both individual and

**Address for correspondence:** Ms. Fenny Leferty Kharपुरi, Department of Human Development, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore - 641 043, Tamil Nadu, India. E-mail: 18phhdf002@avinuty.ac.in

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social levels is required to provide the fullest understanding of healthy youth and improve their well-being with enhanced resilience.

**KEYWORDS:** *Adaptability, health issues, resilience, risk, sexual behavior, substance abuse, youth*

## INTRODUCTION

Changeover is the uniqueness of “Youth” occurs in the form of a journey from childhood dependence to adulthood independence, from school to after school study to employment. This period of evolution encompasses extensive alternations in the physical, cognitive, and psychosocial development. As they advance in this stage of youth, a substantial change is seen in their social and personal preferences and priorities. Their roles and responsibilities also will see drastic modifications. This stage of youth is considered to be critical as youth start establishing behaviors which can be health promoting or risky that largely decide the existing and impending well-being. According to the UNFPA<sup>[1]</sup> estimates, India will continue be having largest youth population in the world till 2030. Youth in India 2022<sup>[2]</sup> report projected youth population would reach 371.4 million by 2021. The United Nations<sup>[3]</sup> reported that globally the youth aged 15–24 years make 16% of the world population which is around 1.2 billion and the estimate is that the youth population has been increased by 7%.

India, one of the significant resources, is the largest population of youth. In a developing country like India, youth is vulnerable for various internal and external factors that might affect their health and safety with the development of risky behaviors. Sunitha and Gururaj 2014<sup>[4]</sup> in their study stated that nearly 10%–30% of the youth suffer from health impacting behaviors and conditions. The 2014–15 National Family Health Survey<sup>[5]</sup> survey carried out in 29 states of India revealed that adolescents in the age group of 15–19 years indulged in alcohol use was 8.9% boys and 0.5% girls, 8.2% of boys and 17.7% of girls had sexual intercourse, 42% boys and 29% of girls attempted suicide. Youth violence was found to be the fourth leading cause of mortality among the adolescents of 15–19 years, and also among boys, it was the second leading cause during 2013.<sup>[6]</sup>

Granlund in 2015 states the risks among young people as a phenomenon that increases the risk or probability for a certain negative outcome.<sup>[7]</sup> Risk behavior trails a distinctive course like, it's low in childhood, grows in puberty, finds an upsurge during youth or late adolescence, and early adulthood and tends to decline during the adulthood.<sup>[8]</sup> Research studies have identified the certain aspects about youth decision-making processes about risk behaviors, first, they often underestimate

the risks involved and tend to see largely possible benefits.<sup>[9]</sup> Second, young people lack reasoning ability to avoid engaging in risky behavior.<sup>[10]</sup> Third, they tend to concentrate on the social consequence as they are afraid of rejection or being not accepted by the group which in other words is called as social acceptability which is significantly associated with youth peer group, and hence, they take decisions emotionally.<sup>[11]</sup> Fourth, young people tend to have inadequate or incomplete awareness of the possible consequences of their actions when they involve in risky behaviors.<sup>[12]</sup>

Risky behaviors prevalent among youth damage the optimal development. They slowly begin to drown in the disaster and trauma they face which may last their lifetime due to the practice of risky behaviors. Hence, it is important to make young people equipped with coping strategies to face the hardships and recuperate from the damages that are caused by risky behaviors.

Resilience among youth is the dynamic process encompassing positive adaptation within the context of significant adversity.<sup>[13]</sup> Resilience is a vital protective phenomenon that can have a bearing on a young person living in the risky environment. The scope of resilience extends to recover and lead a normal life, especially of youth who have undergone distress and disturbed life situations and adversities. A protective factor is not necessarily always be enjoyable or loveable because it needs a lot of patience and perseverance to bounce back. It can manifest itself in the personality trait of an individual, a factor associated to the individual's family, school, community, or social situation. Resilience building process involves protective factors which according to Rutter are those that modify, improve, and alter the responses of a person toward danger.<sup>[14]</sup>

Determining the relationship between risk and resilience factors has significant implications for helping to shape the future of the youth. Literature to a large extent is focused on a single behavioral outcome such as substance abuse or unwanted sexual behaviors and lacks examining multiple interrelated risk-taking behaviors. Inspecting the interrelation between different patterns of risk and resilience factors is important. It is also beneficial to determine the diverse role of risk versus resilience factors on youth well-being. With this milieu, the aim of the study was to assess the relationship between risk behaviors and resilience among youth in the city of Coimbatore.

## Need of the study

Risk and resilience are not new concepts, but only a few studies have collectively studied to find the relationship between them, about how risk behaviors can become a factor for reduced resilience. Coimbatore city of Tamil Nadu is a leading hub for education and industry, also a home for youth from different states and places who come for education and career purposes. Youth face situations which make them vulnerable to risks. Situations such as peer pressure, stress, depression and anxiety, lack of coping skills, and emotional deprivation affect in a negative manner. A negative risk is a threat and there is a need to provide support to these youth to be able to bounce back from the negative risk they face in their life. Hence, finding the interrelationship of risk and resilience among youth will support intervention in preventing risk and promoting resilience.

## METHODOLOGY

### Setting

The study was conducted in Coimbatore City of Tamil Nadu. The city is divided into five administrative zones – East, West, North, South, and Central. Also known as the “Manchester of South India,” Coimbatore is a thriving industrial and commercial hub that offers a unique blend of tradition and modernity.

### Sampling method

The study was a cross-sectional, prospective study consisting of one thousand seven hundred and ten youth. The youth between the ages of 18–22 years, both male (911) and female (799) studying in schools and colleges were recruited using the random sampling method. Out of the six selected schools and colleges, three schools and colleges were under government sector and the other three belonged to the private administration.

### Tools and techniques

Youth Risk Behavior Survey (YRBS) and the Resilience scale were used to collect the data. The 2019 YRBS is a self-report questionnaire scale by the Centers for Disease Control and Prevention to track adolescent risk behavior over time, it was directed to a sample of youth planned to monitor health and risk behaviors. The Resilience questionnaire 2017 by Anne is a questionnaire used to assess the youth quality of resilience/response to resilience. It includes the measures of resilience within self, and in family, school, peer, and community domains. There are the eight components of resilience in this questionnaire, namely self-belief, optimism, purposeful direction, adaptability, ingenuity, challenge orientation, emotion regulation, and support seeking. The items are measured on a 5-point rating scale and the overall scores indicate your ability to cope with risk effectively. The

students took almost 25–30 min to complete both the scales.

### Data collection procedure

The institute human ethical clearance was obtained (Approval Number: AUW/IHEC/HD-19-20/XPD/44 and date of approval: January 20, 2020). After which permission was obtained from schools and colleges catering to youth from the diverse background and where English is the medium of instruction. The students were recruited for the study by taking their personal consent to participate.

### Inclusion criteria

1. Youth between the ages of 18–22 years
2. School and college students.

### Exclusion criteria

1. Youth with special needs
2. School dropouts.

### Statistical analysis

The collected data were scored as per the standard norms of the scale. The data were consolidated and frequency and percentages were calculated to assess the level of risk behavior and resilience factors of youth. Canonical correlation analysis (CCA) was applied to identify the significant relationship of risks with the resilient factors among youth. The data were subjected to the statistical analysis through SPSS 19 (IBM SPSS, Tamil Nadu, India).

## RESULTS

### Level of risks among the selected youth

Table 1 shows the level of risks among youth. We have observed here that majority of the youth face a moderate level of risk. When it comes to driving and safety, we can see that majority of the youth experienced a moderate level of risk, low violence-related behaviors, moderate bullying, high smoking, low electronic vapor, high tobacco use, high consumption of alcohol, low marijuana, high self-medication, high drugs, moderate sexual behavior, high body weight, moderate eating habits, moderate physical activities, low concussions, and moderate health-related issues. The results highlighted that smoking, tobacco, alcohol, and self-medication risks were seen to be higher and are of more concern among youth. The thing that has been considered as a problem worldwide and has affected many adolescents and youth is tobacco, alcohol, and use of other substances. A report by the WHO, 2022 brings out a fact that youth who start early with substance use are at higher risk during their adult life with developing problems with developing dependency, also, compared to older aged people, younger people are unduly affected by substance use.<sup>[15]</sup>

**Table 1: Level of risks among the selected youth**

Risk factor	Level of risk	Frequency (%)
Driving and safety	Low	520 (30.4)
	Moderate	1026 (60.0)
	High	164 (9.6)
Violence-related behavior	Low	1531 (89.5)
	Moderate	179 (10.5)
Bullying	Low	455 (26.6)
	Moderate	1255 (73.4)
Attempting suicides	Yes	811 (47.4)
	No	899 (52.6)
Smoking	Moderate	206 (12.0)
	High	1504 (88.0)
Electronic vapor	Low	1579 (92.3)
	Moderate	131 (7.7)
Tobacco	Low	19 (1.1)
	Moderate	121 (7.1)
	High	1570 (91.8)
Alcohol	Low	34 (2.0)
	Moderate	580 (33.9)
	High	1096 (64.1)
Marijuana	Low	1547 (90.5)
	Moderate	113 (6.6)
	High	50 (2.9)
Self-medication	Low	90 (5.3)
	Moderate	399 (23.3)
	High	1221 (71.4)
Drugs	Low	907 (53.0)
	Moderate	144 (8.4)
	High	659 (38.5)
Sexual behavior	Low	37 (2.2)
	Moderate	1496 (87.5)
	High	177 (10.4)
Body weight	Moderate	770 (45.0)
	High	940 (55.0)
Eating habits	Low	87 (5.1)
	Moderate	1611 (94.2)
	High	12 (0.7)
Physical activities	Low	280 (16.4)
	Moderate	933 (54.6)
	High	497 (29.1)
Concussions	Low	1602 (93.7)
	Moderate	108 (6.3)
Health-related issues	Moderate	1136 (66.4)
	High	574 (33.6)

**Levels of resilience among youth**

This study indicates that all the eight factors of resilience can contribute to good coping with the aftermath of major potentially traumatic events and risky behaviors. In Table 2, it showed the different level of resilience by youth in the city of Coimbatore. We have observed that majority of the youth experienced a low level of resilience. When it comes to the factors of self-belief, optimism, purposeful direction, ingenuity, challenge

**Table 2: Levels of resilience among youth**

Factors	Level of risk	Frequency (%)
Self-belief	Low	909 (53.2)
	Moderate	165 (9.6)
	High	636 (37.2)
Optimism	Low	863 (50.5)
	Moderate	118 (6.9)
	High	729 (42.6)
Purposeful direction	Low	1086 (63.5)
	Moderate	90 (5.3)
	High	534 (31.2)
Adaptability	Low	470 (27.5)
	Moderate	413 (24.2)
	High	827 (48.4)
Ingenuity	Low	1071 (62.6)
	Moderate	13 (0.8)
	High	626 (36.6)
Challenge orientation	Low	1354 (79.2)
	Moderate	74 (4.3)
	High	282 (16.5)
Emotion regulation	Low	1226 (71.7)
	Moderate	388 (22.7)
	High	96 (5.6)
Support seeking	Low	1177 (68.8)
	Moderate	149 (8.7)
	High	384 (22.5)

orientation, emotional regulation, and support seeking, we can see that majority of the youth experienced a low level of resilience and only adaptability was found to have a high level of resilience among youth.

**Interrelationship between risk and resilience**

CCA is commonly used to identify the association between the two sets of variables. With the risk factors (variable set 1), resilience factors (variable set 2), it was found whether a relationship between the risk factors and the resilience factors among youth is initiated in the variable sets. Table of the coefficients to understand the pattern of the variables is presented in Table 3.

**Multivariate test of significance between risk and resilience**

Table 4 collectively shows the full model across the four functions which is statistically significant using the wilk's  $\lambda = 0.847$  criterion,  $f(40, 7399) = 7.137, P < 0.000$ . Furthermore,  $r^2$  effect size was 0.15 explaining 15% of variance shared between the risks and resilience of youth that was calculated by  $1-\lambda$ , as wilk's  $\lambda$  represents the variance unexplained by the model.

**Eigenvalues and canonical correlations of the four functions**

Table 3 illustrates that using a loading level of 0.45 to indicate functional importance, the relationship

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**Table 3: Eigenvalues and canonical correlations of the four functions**

Root number	Eigen value	Percentage	Cumulative percentage	Canon correlation	Square correlation	F (df1, df2)	Significant
1-5	0.08282	48.81355	48.81355	0.27656	0.07648	7.13 (40, 7399)	0.000
2-5	0.03903	23.00325	71.81680	0.19381	0.03756	5.24 (28, 6123)	0.000
3-5	0.03490	20.57133	0.08282	0.18364	0.03372	4.48 (18, 4805)	0.000
4-5	0.01143	6.73512	99.12324	0.10629	0.01130	2.19 (10, 3400)	0.016
5	0.00149	0.87676	100.00000	0.03854	0.00149	0.632 (4, 1701)	0.639

**Table 4: Multivariate test of significance between risk and resilience**

Test name	Value	Approximate F (df1, df2)	Significant
Wilks	0.84789	7.13731 (40, 7399)	0.000

between the first pair of canonical variates can be summarized. This analysis allows to test the hierarchical arrangement of functions for statistical significance. Table 3 shows the full model function 1-4 which was statistically significant as mentioned namely 1-4, 2-4, 3-4, and 4-5. The subsequent function 5 by itself did not explained a significant amount of shared variance between risk and resilience factors of youth after the extraction of the prior functions.

**Canonical solution for predicting risk and resilience of youth for functions 1, function 2, function 3, and function 4**

Table 5 represents the recommended method for reporting CCA results. The standardized canonical function coefficients (i.e., the weights) and structure coefficients for all the variables across both functions are presented. The squared structure coefficients are also given, which represent the percentage of shared variance between the observed variable and the synthetic variable created from the observed variable's set. The last column lists the communality coefficients ( $h^2$ ), which represent the amount of variance in the observed variable that was reproducible across the functions. The structure coefficients above 45 are underlined to show the variables with the highest level of usefulness in the model.  $Rc^2$  was also calculated using the squared canonical multiplied by hundred. The functions as depicted in Table 5 are as follows

- Step 1: The equation on Function 1 involves the predictor set. Results showed that the resilience factors are inversely related to the risk factors. The substance use variable was found to be the primary contributor with a secondary contribution by health issues. This indicated that the higher the substance use and health issues lesser the ingenuity and challenge orientation

- Step 2: In Function 2, the coefficients suggested that the only standard variables of relevance were purposeful direction and adaptability. Health issues were seen to be the dominant predictor, along with sexual behavior. These risk variables were also inversely related. This function explains that when there is high purposeful direction there is lower risky sexual behavior. Similarly, when the resilience of adaptability is low, there is an increase in the risk of health issues among youth
- Step 3: Coming on to Function 3, the coefficients advocate that the only standard variables of relevance in resilience were self-belief and adaptability. Among the risk factors health issues were seen to be the dominant predictor followed by substance use. These risk variables were also inversely related. This illustrates that, higher the self-belief lower the substance use. Similarly, when the risk of health issues is high, lower is the adaptability
- Step 4: Approaching the last Function 4, the coefficients proposed that the only standard variable of significance in resilience is support seeking. Safety risk was understood to be the dominant predictor closely followed by attempting suicide. The risk variables are also found to be inversely related. This function tells that lower support-seeking behavior tends to increase the risk of attempting suicide and there are lesser safety issues.

**DISCUSSION**

The observation in this study indicated that substance use was one of the risky behavior among youths. Regardless of the party culture in the city, the ignorance about the dangers coupled with the easy availability of cheap products has directed to high tobacco use. Smoking is another factor of substance use which was observed to be high at 88%. The Center for Disease Control and Prevention in 2022 conducted a study, which found that close to 1 of every 100 middle school children and nearly 3 of every 100 high school students testified that they had smoked cigars in the past 30 days.<sup>[16]</sup> An article released by Adyar Cancer Institute “The Tamil Nadu Tobacco Survey 2015-16” predicted that there were about 17 lakh people in the

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**Table 5: Canonical solution for predicting risk and resilience of youth for functions 1, function 2, function 3, and function 4**

Variables	Functions												h <sup>2</sup>
	Function 1			Function 2			Function 3			Function 4			
	Coefficient	rs	rs <sup>2</sup>	Coefficient	rs	rs <sup>2</sup>	Coefficient	rs	rs <sup>2</sup>	Coefficient	rs	rs <sup>2</sup>	
Self-belief	-0.22	0.20	4	-0.23	0.25	6.25	0.79	0.81	66	0.17	0.16	2.56	78.81
Optimism	-0.11	-0.09	0.81	0.19	0.20	4	-0.12	-0.14	1.96	-0.36	-0.32	10.24	17.01
Purposeful direction	0.28	0.31	9.61	0.53	0.60	36	-0.02	-0.00	0	0.23	0.19	3.61	49.22
Adaptability	-0.33	-0.44	19.36	-0.57	-0.53	28.09	-0.44	-0.48	23.04	-0.02	-0.05	0.25	70.74
Ingenuity	-0.63	-0.73	53.29	0.40	0.40	16	0.08	0.00	0	0.03	0.02	0.04	69.33
Challenge orientation	-0.38	-0.52	27.04	0.18	0.25	6.25	0.16	0.13	1.69	-0.29	-0.24	5.76	40.74
Emotional regulation	-0.16	-0.29	8.41	0.26	0.24	5.76	-0.33	-0.35	12.25	0.46	0.38	14.4	40.82
Support seeking	0.11	0.10	1	0.13	0.11	1.21	0.03	-0.00	0	-0.78	-0.73	53.29	55.5
Rc2	76.5			37.6			33.7			11.3			
Safety	-0.02	0.05	0.25	-0.08	-0.10	1	-0.08	0.17	2.89	-0.66	-0.70	49	53.14
Suicide	0.27	0.22	4.84	-0.43	-0.60	36	0.33	0.08	0.64	-0.67	0.61	37.21	78.69
Substance use	0.76	0.88	77.44	-0.08	-0.08	0.64	-0.67	-0.45	20.25	-0.19	-0.10	1	99.33
Sexual behavior	-0.00	0.07	0.49	-0.72	-0.77	59.29	0.34	0.34	11.56	-0.34	-0.40	16	87.34
Health issues	0.49	0.56	31.36	0.39	0.45	20.25	0.87	0.66	43.56	0.13	-0.22	4.84	100.0

Structure coefficients (rs) >|0.45| are highlighted. Community coefficients (h<sup>2</sup>) >45% are highlighted. Canonical coefficient=0.15 (15%).  
 Structure coefficients (rs) >|0.45| are underlined. Community coefficients (h<sup>2</sup>) >45% are underlined. Canonical coefficient=0.15 (15%).  
 Structure coefficients (rs) > |0.45| are underlined. Community coefficients (h<sup>2</sup>) >45% are underlined. Coefficient: Standardized canonical function coefficient, rs: Structure coefficient, squared structure coefficient, h<sup>2</sup>: Community coefficient

Coimbatore district and rural population covering up to 3.8% in the urban areas consumed nicotine-rich products.<sup>[17]</sup> Nevertheless, according to The Times of India, 2017, the numbers were still higher in the rural areas.<sup>[18]</sup> The use of drugs was also found to be closely high with 35.8% in this study. On December 14, 2022 youths between the ages of 22–25 years were arrested with methamphetamine in crystal form, a recreational drug in Kerala and Tamil Nadu. According to the police, youth use it at rave parties. Furthermore, it was found that one 19-year-old youth possessed drugs such as ganja and methamphetamine and a youth from a private college was also found to possess drugs.<sup>[19]</sup> These incidents are so alarming, earth-shattering facts about the risky behaviors of youth. The behavior of substance use has made them so reckless. The use of the substance is not only causing health risks but also impeding their future life.

Self-medication is another alarming concept among youth in our study displaying 71.4% high level of risk that triggers young people’s lives today. According to a study of 352 respondents from 124 households in urban Puducherry revealed that 11.9% reported to be doing self-medication and it was noted that males under 40 years of age involved more in practicing self-medication for fever, headache, and abdominal pain. The most common method adopted to procure medicines from a pharmacy was based on the symptoms of the illness. Very commonly, respondents’ felt that self-medication was harmless and also advised others

about the self-medication they use.<sup>[20]</sup> Self-medication is an absolute risky behavior, health education intervention for youth and monitoring pharmacies might help in curbing this practice.

Body weight was another major problem among youth in our study showing 55% of high level of risk. A study was conducted by Shanmugam *et al.* among 890 children and adolescents aged between 5 and 19 years. Around 13.03% were found to be obese and overweight. The alarming situation in the rural areas of Coimbatore can be sensed here. The eating habits of children and adolescents might be one reason which is steering its way through this risk.<sup>[21]</sup>

The CCA demonstrates the collective relationship between the risk factors and resilience among the youth where it resulted showing substance use and health issues were the predictors for low ingenuity and challenge orientation and the lower the support-seeking, the higher the risk of attempting suicide This demonstrated theoretically that where there was a high risk of substance use and health issues, lesser the support-seeking behavior was demonstrated. With this youth tend to find it challenging to detect a way out of their problems or risks. The terminology and science of risk and resilience emerged primarily from the health sciences and particularly from the investigation of psychopathology. The risk factors are the causes of undesirable, nonformative developmental outcomes, and resilience is a pattern of behavior and functioning indicative of positive adaptation in the context

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of significant risk. These results are generally supportive of the theoretically expected relationships between risk and resilience. Therefore, these functions seem to capture theoretically consistent relationships that we may collectively call “Risk of decreased positivity,” “Risk of despair,” “Risk of impulsivity,” and “Self-efficacy and maladjustment.” Based on the characteristics of the primary contributor of resilience that is ingenuity, adaptability and purposeful direction. The study of risk and resilience seeks to illuminate the causes, mechanisms and subsequent developmental consequences of constancy, and change in behavior and functioning in the face of adversity.<sup>[22]</sup>

The outcomes of the present study showed those with a history of substance use, sexual behavior, attempted suicide, and health issues had lower self-esteem and ingenuity. Youth is usually well-thought-out as a healthy time of life. The complications faced by youth today are linked to the social factors and lifestyles. Youths become vulnerable to environmental influences due to their period of life of transition from childhood to adulthood. They are more inclined to a number of health-impacting conditions because of their personal selection which includes indulging in risky behaviors such as substance use, consumption of tobacco and alcohol, being reckless such as rash driving, committing or attempting suicides, sexual risk behaviors leading to teenage and unplanned pregnancies, contacting STIs and STDs, ending up on streets being homelessness, indulging in vandalism and violence etc.<sup>[4]</sup>

Coming to the risk of suicides, it was reported that about one million people commit suicide every year.<sup>[23]</sup> As per the official reports in 2011 between the age of 15–29 years, it was found that approximately 1,36,000 people ended their lives or committed suicide in India. “A study from Bangalore in 2013 showed that out of the 5115 attempted suicide, 912 were in the age group 10–15, 16–20, and 21–25 years and girls were higher in number than boys.”<sup>[24]</sup> An age-specific suicide prevalence rate among males and females aged between 15 and 24 years was found to be 5.1 and 8.1, respectively, per 1,00,000 population per year Soman *et al.*<sup>[25]</sup> “In India cities such as Chandigarh and South Delhi were found to be leading in the problems of children and adolescents, especially with suicidal thoughts and attempts where suicidal thoughts were reported by six percent of children and adolescents aged 11–17 years and 15.8% aged 14–19 years and suicidal attempts were reported by 0.4% of students aged 11–17 year and 5.1% students aged 14–19 years”.

The risky behaviors among youth such as drug and alcohol abuse, road rage, delinquent behavior, unhealthy eating habits, obesity, and homelessness are the consequence of poor decision-making.<sup>[26]</sup> Youth who are less resilient might turn to bring up harmful actions and

have negative beliefs about themselves to handle the challenges in their lives.<sup>[27]</sup> Lack of resilience leads to the adverse outcomes. Researchers have acknowledged that a lack of resilience in adolescents and youth may lead to psychosocial maladaptation and psychopathology in later life. Resilience can be practiced and youth may be educated to be resilient. Consequently, resilience should be determined at an early age to curb risk behaviors.

## CONCLUSIONS

The study emphasizes the differential impact of risk and resilience on the different aspects of youth functioning and supports the need for specificity in resilience research. Low levels of resilience are associated with an increased risk of substance use, health issues, and attempting suicide. This highlights the importance of promoting preventive behaviors amongst a high-risk population. Controlling this risky behavior by raising the awareness early in life may help decrease the burden of complications, injuries, and even death. Attention to risk factors at both individual and social levels is required to provide the fullest understanding of healthy youth and improve their well-being with enhanced resilience.

## Recommendations

This study can be done on large samples in different settings. A study can be conducted on dropouts too. A comparative study can be conducted between the various states in India. A similar study can be performed among the teens in this generation. It can be conducted on a long-term basis with intervention.

## Ethical policy and institutional review board statement

Informed consent was taken from all the respondents for inclusion before they participated in the study. The study was conducted in accordance to the declaration and was approved by The Institutional human ethical committee (Approval Number AUW/IHEC/HD-19-20/XPD/44 and date of approval: January 20, 2020).

## Data availability statement

The Data supporting our study would be available conditionally on request. The data are not publicly available due to the ethical reasons of confidentiality and privacy of research participants.

## Authors' contributions

Ms. Fenny Leferty Kharपुरi- Research Scholar.

Dr. Ramya Bhaskar- Research Supervisor.

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**Conflicts of interest**

There are no conflicts of interest.

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## Influence of Socio Demographic Variables on Violent Behaviour Among Youth

Fenny Leferty Kharपुरi<sup>1</sup> and Ramya Bhaskar<sup>2</sup>

*Department of Human Development, Avinashilingam Institute for Home Science and Higher  
Education for Women, Coimbatore, Tamil Nadu, India.*

*Phone: <sup>1</sup><8610551010>, <sup>2</sup><9901281603>, E-mail: <sup>1</sup><fennysohklet@gmail.com>, <sup>2</sup><ramyabhaskarr@gmail.com*

**KEYWORDS** Age. Education. Gender. Violence and Safety. Young People

**ABSTRACT** The objective of the study was to determine the socio demographic variables that might influence violent behaviour among youth. A sample of 1,205 youth aged 18-22 years were recruited using simple random sampling from the city of Coimbatore, Tamil Nadu state. The Youth Risk Behaviour Scale was administered to assess the violent behaviour. The linear regression analysis showed age, gender and mothers' occupation to be the significant determinants of violent behaviour among youth. Also, youth between 18-19 years revealed a higher mean score when compared to 20-22 years and males showed higher risk for violence behaviour than females. The findings throw light on the socio demographic conditions, which is a major indicator of health, development and wellbeing of the individuals, and has its role in influencing violent behaviour among youth.

### INTRODUCTION

The World Health Organisation (2020) describes "youth violence" as a universal public health problem ranging from bullying and physical fighting to more severe sexual and physical assault to homicide. Youth are defined as those aged 15-29 where one gets the freedom and is engaged to do a lot of things. They are living in a society with varying social spheres impacting their belief, attitudes and behaviour and where the impact of risk behaviour can be seen as being reckless. "A large proportion of violent, aggressive and antisocial behaviours emerge during adolescence and young adulthood" (Micciolo et al. 2022). Youth violence, increasing all over the world, has become a critical issue both socially and psychologically. Hence extensive public concern about youth violence remains. "Violence by youth is a serious collective concern" (Welsh 2008; Andrews and Bonta 2010). High-risk health behaviours in youth such as consumption of alcohol, tobacco and drug use, early onset of sexual behaviour, STDs, and early parenthood have been associated with violence. Youth violence is linked to negative health and well-being outcomes and disproportionately impacts communities. Violence increases the risk for behavioural and mental health difficulties, which includes future violence perpetration and victimisation, smoking, substance use,

obesity, high-risk sexual behavior, depression, academic difficulties, school dropout, and suicide (Centre for Disease Control and Prevention 2022). Worldwide an estimated 200,000 homicides occur among youth aged 10-29 years each year, making it the fourth foremost cause of death among young people. Physical fighting and bullying are common among young people where a study of 40 developing countries showed that an average of 42 percent of boys and 37 percent of girls were exposed to bullying. Youth homicide and non-fatal violence not only contribute critically to the global burden of premature death, injury and disability, but also have a severe, often lifelong impact on a person's psychological and social functioning. Youth violence also increases the costs of health, welfare and criminal justice services, reduces productivity, and decreases the value of property (World Health Organisation 2020). "Although it often occurs between acquaintances and strangers in community settings, it can also involve domestic abuse, whether physical, verbal, sexual, psychological or financial" (Russell 2021). "Violence in education settings like schools causes serious harm to children and adolescents that can last into adulthood. Violence in schools has a negative impact on the school environment by creating an atmosphere of anxiety, fear and insecurity, and it can violate the rights of students, including their right to education and to health. Schools do

not exist in social isolation from the communities, and violence at home or within the community can affect students in school, and may be replicated in schools” (Golshiri et al. 2018). A number of school-related difficulties and problems have been associated to violence among youth, which includes low interest in education, low levels of educational achievement and attainment, poor school quality and dropout. Even more widespread effects have been found on mental health and psychosocial well-being. “Assaults involving the youths add significantly to the global burden of morbidity and premature mortality” (World Health Organisation 2018). The socio demographic variables can function at the individual level like age, gender, poor academic ability, substance misuse, at familial level such as poor parental supervision, low socioeconomic status of family, and at societal level with urbanisation and poor social capital. Violence can also take many forms in physical, sexual or emotional and varies in its severity. Gender discrimination, norms and practices mean that adolescent girls are likely to experience certain forms of violence, such as sexual violence, at much higher rates than boys. This may further predispose the adolescents to the brim of developing mental health problems like depression, which is of utmost importance to be addressed by primary care physicians. Globally, 1 in 10 girls under the age of 20 years reports experiencing sexual violence (World Health Organisation 2018). Not all adolescents are at risk for violence perpetration, and one’s developmental outcome is an interplay of both individual characteristics and environmental risk factors. Several socio demographic factors have been found to put adolescents at risk for violence. Research showed that for adolescents from communities of lower socioeconomic status, the majority have encountered violence at home, in school, and in the community (Kaminer et al. 2013). Male adolescents are more likely than their female counterparts to encounter violence victimisation in school and community (Sui et al. 2018), or engage in aggressive behaviours and violence perpetration (Reyes et al. 2017). Specifically, the school is one of the major developmental domains where adolescents gather on a regular basis, and this environment can encourage or hamper a range of social and emotional developments. Research found that lower academic performance, for example, the lack of commitment to school work, poor study

skills, and lower grades are consistently associated with a higher risk for involvement in violence (Bernat et al. 2012).

The outcome of youth violence is much distressing. It is essential to find the youth under risk getting involved in violent performances and to impart them with educational preventive programs. Through school, family and community-based interventions youth violence can be prevented or reduced (Russell 2021). Youth who are at risk put their behaviour at risk for upcoming negative consequences and accordingly, they struggle to reflect about long-term penalisation, and they would at no time imagine that worst could ever happen to them. With this backdrop, the study was directed to report the influence of socio demographic variables on violent behaviour among youth.

### Objectives

The study aimed to achieve the following objectives:

1. To identify the magnitude of youth involved in violent behaviour in Coimbatore,
2. To examine the socio-demographic determinants of violent behaviour among youth.

### METHODOLOGY

The study was conducted among the 1,205 youth studying in 11<sup>th</sup> grade to postgraduate in the city of Coimbatore, Tamil Nadu, India. Youth between 18-22 years both male and female were selected from the five zones of Coimbatore city. Ethical approval was obtained from the Institutional Ethics Committee, after which permission was taken and the research was conducted in schools and colleges, where English is the medium of instruction and which caters to youth from diverse backgrounds.

Socio-demographic profile and Youth Risk Behavior Survey (YRBS) were used to collect the data. A general questionnaire was used to collect the personal information/profile of the selected youth, and was formulated with relevance to age, gender, educational status, types of family, father’s and mother’s education, father’s and mother’s occupation and family annual income. The National YRBS Scale and Questionnaires were administered to elicit the information regarding the risks involved in

violence of youth. The 2019 YRBS is a self-report questionnaire scale that was developed by the Centre for Disease Control and Prevention (CDC) to track adolescent risk behaviour over time, it was directed to a sample of youth planned to monitor health and risk-behaviours.

Descriptive statistics like frequency and percentage analysis was used to assess the different demographic characteristics of youth and the level of risk behaviour related to violence. T-test was applied to compare age group and gender of youth in relation to violent behaviour to see the significant differences. Linear regression analysis was performed to assess the significant influence of socio demographic factors on violent behaviour. The data were subjected to statistical analysis through SPSS 19.

## RESULTS

Table 1 shows the socio-demographic profile of the youth from the present study. Socio-demography is an important aspect in any society. It holds a prominent position in social science as well as behavioural research. Socio demography is the characteristics of a population or of an individual and these characteristics certainly make an individual's identity and have its impression on their development. Understanding the socio demographic features of a population aids the researcher to measure the habit and way of life, which impacts on the lifestyle of people, their ability or capacity and their communication pattern, the practices and the development of the attitude. Several research studies have hypothesised the influence of socio demographic conditions on the behaviour development of adolescents and youth.

Hence, in the present study a set of socio demographic information has been collected and presented. In the above Table 1 it can be understood that out of the total 1205 youth, 50.8 percent were in the age of 20-22 years and 49.2 percent were between the ages of 18-19 years. Looking into the gender category, this Table shows that among the youth respondents' higher percentage were females (57.9%) compared to males (42.1%). This table also classifies youth based on their educational qualification, where the majority of the youth were doing their undergraduate (78%) followed by postgraduate with 34.8 percent and the least belonging to high school with 16.1 percent. One can

observe that 44 percent of the youth reside in the urban area of Coimbatore city, followed by 30.8 percent in rural area and the rest of the youth resides in the semi urban area of Coimbatore (25.2%). Majority of the youth lived in a nuclear family (70.5%) and the rest lived in a joint family (29.5%).

The data stated that the majority of the youth's fathers have completed their postgraduate (29.4%), followed by undergraduate (26.2%), 10<sup>th</sup> standard (21.5%), few have completed 11<sup>th</sup> to 12<sup>th</sup> standard (8.1%) and the rest have completed below 10<sup>th</sup> standard (7.3%). Talking about the mothers' education, the majority of the youth mothers are 10<sup>th</sup> passed (29.4%) and 11<sup>th</sup> to 12<sup>th</sup> standard (27.7%), followed by mothers completing their undergraduate (18.3%) and below 10<sup>th</sup> standard (17.4%) and very few completed their postgraduate (6.6%).

Also, the data represents the fathers' occupation where most of them are working in the private sector (47.6%), some work in the government sector (26.3%) and few work as daily wage workers (26.1%). Referring to the youth's mothers' occupation, it can be seen that the majority of the mothers are not employed (69.8%), followed by mothers working as daily wage earners (13.1%). Mothers working in the government sector are quite a few (9.5%) and the rest of the mothers are in the private sector at only 7.6 percent.

The data on the family income shows that 44.6 percent of the youth's family annual income comes between 2-5 lakhs, followed by the income of less than 2 lakhs with 32 percent. It can also be observed that 18.8 percent of the youth family earns an annual income of 5- 10 lakhs.

In Table 2, out of the 1205 youth who responded to the questionnaire, 10.7 percent of them agreed to be using moderately violent behaviour and the rest responded to be having low levels of violent behaviour. However, no one reported having higher levels of violent behaviour. The violent behaviour, which includes carrying a weapon such as knife, etc. to school or college campus may not have been carried by the youth of the city of Coimbatore. Whereas getting into physical fights with peers on the school campus may be expected. A culturally conservative city in the state of Tamil Nadu can be counted as one of the explanations for this level of violent behaviour. Nevertheless, the youth with moderate levels of violent behaviour may be taken into consideration as a risk due its uncertainty of levels, which may increase or decrease.

**Table 1: Depicts the socio-demographic profile of the youth**

<i>Socio demographic</i>	<i>Category</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Age</i>	18-19 years	593	49.2
	20-22 years	612	50.8
	Total	1205	100.0
<i>Gender</i>	Male	507	42.1
	Female	698	57.9
	Total	1205	100.0
<i>Education Qualification</i>	High school	194	16.1
	Undergraduate	592	49.1
	Post graduate	419	34.8
	Total	1205	100.0
<i>Types of Family</i>	Joint	355	29.5
	Nuclear	850	70.5
	Total	1205	100.0
<i>Residence</i>	Urban	530	44.0
	Rural	371	30.8
	Semi urban	364	25.2
	Total	1205	100.0
<i>Father's Education</i>	Below 10 <sup>th</sup> grade	88	7.3
	10 <sup>th</sup> grade	259	21.5
	11-12 <sup>th</sup> grade	98	8.1
	Undergraduate	316	26.2
	Postgraduate	354	29.4
	Others	90	7.5
	Total	1205	100.0
<i>Mother's Education</i>	Below 10 <sup>th</sup> grade	210	17.4
	10 <sup>th</sup> grade	354	29.4
	11-12 <sup>th</sup> grade	334	27.7
	Undergraduate	221	18.3
	Postgraduate	79	6.6
	Others	7	.6
<i>Father's Occupation</i>	Total	1205	100.0
	Government	317	26.3
	Private	574	47.6
	Daily wages	314	26.1
	Total	1205	100.0
<i>Mother's Occupation</i>	Government	115	9.5
	Private	91	7.6
	Daily wages	158	13.1
	Not employed	841	69.8
	Total	1205	100.0
<i>Family Annual Income</i>	Less than 2 lakhs	385	32.0
	2 lakhs - 5 lakhs	537	44.6
	5 lakhs - 10 lakhs	226	18.8
	10 lakhs - 20 lakhs	50	4.1
	Above 20 lakhs	7	.6
	Total	1205	100.0

Table 3 represents the t-test comparing age group and gender with regards to violent behaviour among youth. The results of the present study discovered that there is a significant ( $P < .000$ ) difference when it comes to violence and age group. It can be seen that youth between 18-19 years reported higher mean scores to show more violence behaviours than youth

between 20-22 years. As the active environment sways human behaviour, one can observe here how violence impacts more of a teen's life rather than that of the older youth. "Substantial studies have found similar attitudes being expressed by teenage people towards violence. Teenagers' attitudes towards violence have been linked to expectations for 'normal' gender behaviour".

**Table 2: Frequency table of the risk factors involving violence**

Risk factor	Level of risk	Frequency	Percentage
Violence Related Behaviour	Low	1076	89.3
	Moderate	129	10.7
	Total	1205	100.0

**Table 3: Age and gender-wise differences of violent behaviour among youth**

Variables	Risk factors	Category	N	Mean	Std. Deviation	Df	t	Sig
Age Group	Violent behaviour	18-19 years	593	14.6	4.64	1203	4.75	.000
		20-22 years	612	13.6	3.23			
Gender	Violent behaviour	Male	507	15.08	5.15	1203	7.052	.000
		Female	698	13.46	2.75			

Also, when comparing gender with violence, results show a highly significant difference ( $P < .000$ ) where males (15.08) had more violent behaviour risks than that of the females (13.46). A study by Sundaram (2013) stated that “it’s a thing that we know but we can’t put into words and testifying men aren’t allowed to hit women and that’s what you think”. Violence among girls was viewed differently to that of boys. “Naturally, girls’ violence was defined as “emotional or verbal aggression, which includes bullying, isolation and ‘bitchiness’, for example, put-downs, gossiping, narrating and spreading rumours. In some groups, this was well-defined as being more destructive than physical violence, which was classically associated with boys”.

Table 4 shows the influence of socio-demographic factors on the violent behaviour through a linear regression model. Age, gender, educational qualification, types of family, father’s and mother’s education, father’s and mother’s occupation and

the family annual income were considered under socio-demographic variables. According to the Table, the R value of .263 indicated that there is a positive relationship between the independent variable that is socio demographic factors and the dependent variable of violent behaviour with 6.9 percent variance with R square being .069. The Table illustrates that socio demographic factors are certainly an influencing aspect at any given point of time for violent behaviour with the F value being 9.863 and p value of 0.0001 showing 1 percent significant levels. Further, looking at the Beta value, t and p values, one can understand that age, gender and mother’s occupation were found to be the significant predictors at 1 percent levels with t value being -5.300, -6.201 and 3.492 with Beta value of -.170, -.184 and .120 respectively, for age, gender and mothers’ occupation. A cautious view of the results draws attention to even education qualification, which shows a marginal significance

**Table 4: Analysis of socio demographic factors with violent behaviour among youth**

Variables	Unstandardised coefficient		Standardised coefficient	t	p value	R	R	F	Sig
	B	Std. Error	Beta						
Violence and behaviour (Constant)	1.243	.129							
Age	-.105	.020	-.170	-5.300	.000	.263	.069	9.863	.0001
Gender	-.115	.019	-.184	-6.201	.000				
Education qualification	.029	.015	.065	1.944	.052				
Types of family	-.012	.020	-.018	-.617	.537				
Father’s education	-.012	.012	-.056	-1.029	.304				
Mother’s education	.015	.010	.056	1.448	.148				
Father’s occupation	.006	.026	.015	.249	.803				
Mother’s occupation	.038	.011	.120	3.492	.000				
Annual income	.012	.016	.034	.758	.449				

( $P < .052$ ) for violent behaviour with Beta value of .065 and t value of 1.944, which indicates that the educational qualification of the individual can also be considered as a predictor of violent behaviour. The findings throw light on the socio-demographic or socio-economic conditions and the living conditions, which is already a major indicator of overall health, development and wellbeing of the individuals, which in turn depicts that the society's development has its role in the headway of risk behaviours among teenagers and youth.

### DISCUSSION

The observation was made that the overall violence related behaviours among youth are moderate to low in the study. The incidence of physical violence in males was seen to be more than that of the females. In both the genders, the younger age is more connected with physical violence. Several studies have revealed that the degree of violence increases in the preadolescence or early adolescence, peaks in late adolescence, and drops during the young adulthood stage. Age, gender and mothers' occupation have been identified as significant predictors of violent behaviour along with educational qualification showing a marginal significance for violent behaviours of youth. "Parental attachment in adolescence is extremely essential as it serves the purpose of regulation of stress, buffering of aggression and provides a secure base for an adolescent to explore and grow" (Ndugwa 2011). Other studies also support this notion that lack of parental affection and communication and low level of parental support and attachment, causes psychosocial distress leading to physical aggression and violent behaviours (Savage 2014). "The closeness that a child feels toward their parents signals a good quality parent-child relationship and it may also result in greater parental knowledge of children's whereabouts due to children's willingness to volunteer information about their daily lives to parents" (Stattin and Kerr 2010). In addition, a supportive and warm home environment can offer a protected space for young people to grow and develop. "Many observers judged working mothers as selfish, unnatural and even dangerous to their children and society" (Wilson 2006). In ancient times, the role of women was just to give birth to the new generation and to do house-

hold work. Staying at home was important as the whole responsibility of child bearing and childrearing was carried by the mother in the family. In every society around the world, by custom mothers are primary caregivers to infants and children. But things have changed in the 21<sup>st</sup> century, as the role of women has slowly progressed (Tan and Yazdaniford 2013). In today's world, women play multiple roles, at home they play the role of a homemaker and at the workplace they play the part of the labour force. The working woman plays different characters in her family such as that of a wife, leader, administrator, manager of family income, and most importantly that of a mother. Each of these characters is crucial in nurturing the next generation and society (Bishnoi et al. 2020). Rising maternal employment overlaps with another family change that affects mothers' time and relationship with their children that reflects in changes in family structure (Milkie et al. 2015). Working mothers will easily cause mother-child barriers, as they may not be able to provide quality time to their youth, as they carry additional responsibility at work and at the domestic front. Essentially, both of these jobs are tremendously tough as both cannot be neglected but to be given impartial attention and prominence, which is quite challenging. A lack of emotional attachment and bonding between youth and working mothers, poor parenting practices due to their busy schedule, family dysfunction and separation may lead to low involvement of employed mothers, which might be also one of the reasons for youth to show their frustration in the form of violence. Preceding studies claimed that family and parental factors deliberated as strong predictors for the development of antisocial behaviour, while Diana Baumrind (1995), debates that poor parenting and poorer level of family socio-economic status considerably engaged with children's violent behaviour. Coming to gender and violence, when surveyed with respect to why they assumed violent behaviour was not acceptable after committed by a man and not by a woman, the male members often raised narratives about 'feeling' and 'sense' that committing violence towards women was wrong, but without being able to express as to why this was the scenario. Gender and age put adolescent girls at a double disadvantage based on intersectional systems of oppression, exclusion, and discrimination (Imkaan 2019). An individual-level risk and protective factors and gender-based

violence is considered perpetuated by macro level forces like rigid gender roles, and acceptance of interpersonal violence at a social level (Decker et al. 2015). Cobinna et al. (2010) stated that “young men characterised their own violence as dangerous, whereas the violence carried out by girls even when it was similar in form and character to that of the boys was understood as being emotionally based, hysterical and about trivial matters”. Violence is one of the major causes of physical harm, psychological distress, lasting physical ill-health and long-term physical or mental disability. Such violence can create a bad impact and bring a negative outcome in the life of the youth be it in the present or even in their future.

### CONCLUSION

The findings from the current study showed age and gender-wise differences in violent behaviour among youth. Also, socio demographic influences on violence behaviour existed and it was also found that age, gender and mother’s occupation are the significant predictors of violence behaviour among youth. Research findings on age differences in violence designates that prevalence of violent behaviours upturns as an individual gets older. Younger adolescents are exclusively vulnerable in their early teen years and they focus to an unlimited deal of peer pressure in order to adapt certain ethics, rules and actions so they tend to resolve conflict mainly using negative approaches such as aggression, but as they age, they practise extra positive styles such as conversation and compromise to resolve conflicts. This result also reveals that there is a gender difference in violent behaviours because both boys and girls take and handle risk differently, and therefore, both genders might have diverse ideas of what creates violent behaviours, for example girls predict more of internalising behaviours so they keep their anger and emotions inside of them whereas boys are more externalising where they report more aggressive behavioural reactions, which brings out their aggressiveness out of them in the form of fights and creates violence. Likewise, the findings of linear regression shows that the socio demographic factors (age, gender, mothers’ occupation) of the respondents were found to be a significant predictor of violent behaviour among youth, it may be thought that weak parenting can also yield a great-

er level of violence among young people that may be one powerful reason to push them to be involved in violent behaviour.

### RECOMMENDATIONS

Violence in young people is a problem with massive public health significance. Risk assessment may include interviews with the subject, caretaker, family member, friends and teacher, along with reviewing mental health. It is essential to carry out more research that explicates the influence of various violence types right from adolescence into adulthood. On the basis of discoveries of this research, it is recommended to understand the violent behaviour among youth, minor deviation is needed to study from young individuals in school and college settings in the cultural context of Indian society. It is also suggested to study the minor violent behaviour among young people in the context of peer pressure, familial pressure, and cultural principles. A much stronger research base work will support the researchers and practitioners to design more interventions with long and lasting effects on violence. The study recommends intervention for the “youth in schools and colleges which involves guidance counselling programmes”. Though, youth come from various socio demographic backgrounds, belonging to different age groups and gender, their violent behaviours need to be identified and intervened at the earliest for a positive youth development and wellbeing.

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