Coping Strategies of students of High School and College for Anxiety During the Pandemic

Tanvi Nagar
tanvibnagar@gmail.com
Delhi Public School, Gurgaon, Haryana

ABSTRACT

Covid-19 pandemic has affected people across the globe who have experienced lockdowns, restrictions, social distancing which has impacted their psychological and mental health. Coping strategies are a cognitive and behavioural effort made by individuals to deal with challenges presented by stressful situations. This study attempts to understand the coping strategies commonly adopted by students. This study examines three different coping strategies-problem solving, seeking social behaviour and avoidance adopted by high school and college students, during the pandemic. The study tries to understand the types of coping strategies adopted by students to deal with the stressful situation and how they use 'coping with hope' as a coping strategy. Further, the study aims to understand whether the coping strategies are more problem solving focussed or more avoidance focussed during the pandemic for the high school and college students. 98 students were selected based on random stratified sampling and snow ball sampling techniques from Delhi Public School, Gurgaon, India. The questionnaire used for the study was based on Coping Strategy Indicator developed by Dr. James H. Amir Khan along with a self-designed questionnaire to understand the nature of activities indulged in by the subjects and their attitude towards coping with hope. Pandemic has led to an increase in stress and a higher emotional oriented coping. Family and social support helped to reduce avoidance-oriented coping. The findings of the study show that during the pandemic students adopted higher avoidance coping strategy than problem solving and seeking social support coping strategy.

Keywords— *Coping Strategies, High School Students, Anxiety, Pandemic, Problem Solving, Seeking Social Support, Avoidance, Coping with hope*

1. INTRODUCTION

Since the last one and half years the world has been battling with COVID-19 pandemic and people across the world have experienced lockdowns, restrictions, social distancing, which has affected their mental and psychological health. The research undertaken tries to understand the coping strategies commonly adopted by the high school and college students. Coping strategies are of different types: some promote positive psychological outcomes while others increase stress and result in negative outcomes. Coping strategies are personal to an individual and are affected by situational factors. This study examines the 3 different coping strategies-problem solving, avoidance and seeking social support adopted by high school and college students, during the pandemic.

The purpose of the study was to investigate the types of coping strategies adopted by students to cope with stress due to the pandemic. The study also tries to understand the approach adopted by students to deal with the stressful situation and how they use 'coping with hope' as a coping strategy. 98 students were selected based on random stratified sampling and snow ball sampling techniques from Delhi Public School, Gurgaon, India. The questionnaire used for the study was based on Coping Strategy Indicator developed by Dr. James H. Amir Khan along with a self-designed questionnaire to understand the nature of activities indulged in by the subjects and their attitude towards coping with hope. Due to the pandemic there has been an increase in stress and a higher emotion oriented coping. Family and social support helped to reduce avoidance oriented coping. Thus by seeking social support, individuals can control negative emotions associated with stress and can engage in activities that alleviate stress. Those individuals who are confident in coping resources and have the ability to control the situation they adopt problem solving strategies which reduce the main causes underlying stress.

The study undertaken shows that during the pandemic the students adopted higher avoidance coping strategy than problem solving and seeking social support coping strategy.

2. LITERATURE REVIEW

Coping strategies are the cognitive and behavioural efforts made by an individual to deal with, mediate, tolerate and minimise the challenges presented by stressful situations and external sources. Research indicates that some coping strategies help to reduce stress and promote positive psychological behaviour, whereas

others exacerbate stress and promote a negative psychological impact. (Parker, 1990); (Folkman, 1984). The efficacy of any given coping strategy may also depend on other factors, including perceived controllability of the stressor, availability of sufficient coping resources, intensity of the stressor, and nature of the outcomes. (Moskowitz, 2000), (Folkman); (Saklofske, 1996).

Emotion oriented coping or seeking social support involves adopting coping strategies by which individuals try to control negative emotions associated with the perceived stressful situation. They try to engage in activities which will help to reduce stress. In case the individual is not able find emotion oriented coping mechanism they may be preoccupied with negative emotions like suppression and self-blame. (Endler, 1996). It involves efforts to maintain hope and to control one's emotions and venting feelings of anger and frustration. It may involve emotional distancing or seeking social support, and may be used if the situation can't be changed. (Skinner, 2016).

Avoidance oriented coping includes activities and cognitive strategies used in a deliberate attempt to disengage from stressful situations like wishful thinking, seeking distractions, substance use. (Endler P. &., 1993). It involves denying or reducing the seriousness of the situation and repressing the thoughts to escaping the situation. It is associated with creating self-protective thoughts.

Task oriented coping strategy or problem-solving coping strategy involves obtaining information about the stressful external situation and about other courses of action that could be used to reduced stress associated with the event. It involves setting priorities and tackling the stressful situation directly. Problem solving coping strategy encourages adaptive behaviour and promotes self-esteem and results in lesser anxiety and depression. (Mc. Williams, 2003) (Endler P. &., 1992) (Sandler W. M., 1997) (Hirky, 1996) (Saklofske, 1996)

Those individuals who have greater confidence in ability to control the situation would adopt problem solving strategies which would alleviate the primary cause of distress. However, if the individual has less control and has low confidence, they adopt more of emotion oriented and avoidance oriented coping strategies.

Study conducted by (Rachele Mariani A. R., 13 November 2020) shows a significant positive correlation of depression with emotion and avoidant coping strategy, a significantly negative correlation with social support and a positive correlation between with emotion and avoidant scale. There was no significant correlation found between emotion scale and family support and avoidant scales.

3. RESEARCH OBJECTIVE
The study was undertaken to:
1. Understand the types of coping strategies adopted by high school and college students during a pandemic.
2. Are coping strategies more problem solving focussed or more avoidance oriented during pandemic?
3. What is the approach to deal with the stressful situation and how do students use 'coping with hope', as a coping strategy?

4. SIGNIFICANCE OF THE STUDY
The study aims to understand the coping strategies adopted by high school students and will be a source of information for researchers and students.

5. LIMITATIONS OF THE STUDY
The study has focussed on coping strategies adopted by students at Delhi Public School, Gurgaon, India. The survey was sent out to 200 students but the response rate was low. The study has been conducted on a small sample of 98 respondents collected through stratified and snow ball sampling as the students were on summer vacation and boys were less forthcoming to respond to a survey related to the pandemic.

6. OPERATIONAL DEFINITION USED IN THE STUDY
- **Problem solving** as used in CSI assesses instrumental, problem-oriented approaches to active management of stressors example: brainstormed all possible solutions before deciding what to do? And is derived from primitive 'flight' tendencies.
- **Seeking Social Support** as used in CSI measures attempts at human contact during times of duress for comfort such contact provides example: Confided your fear and worries to a friend or relative.
- **Avoidance** as used in CSI reflects tendencies to escape the problem, both by means of physical and psychological withdrawal for example, through distraction or fantasy example 'avoided being with people' and 'buried yourself in hobby' and is derivative of flight tendencies.
- **Coping with hope:** Measures the ability of the student to perceive the situation positively and indulge in optimistic thinking while having a positive attitude.

7. RESEARCH METHODOLOGY
A descriptive study was used to conduct the survey so that detailed information could be obtained about questions of interest to the research.

The target population were students of Senior School. 98 students were selected from a total of 1600 students from class 9,10,11 and 12 from a school using random and stratified sampling. A few college students of the same high school were also selected based on snow ball sampling. As the data suggests 25 (25.5%) of the sample of study are males and 73 (74.5%) of the sample of study are females. The 88 high school students comprise 90% of the sample with 6 college students (6%) and 5 Graduates (5%).

TABLE 1: GENDER AND OCCUPATION OF SAMPLE
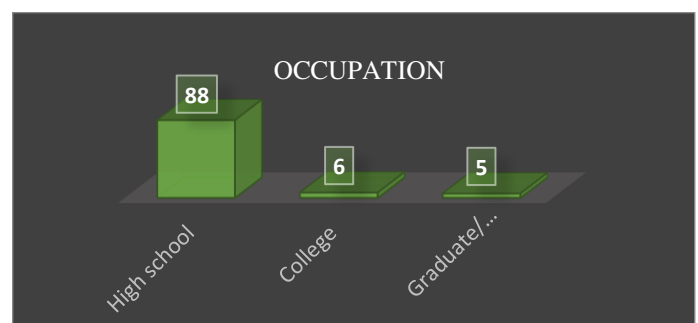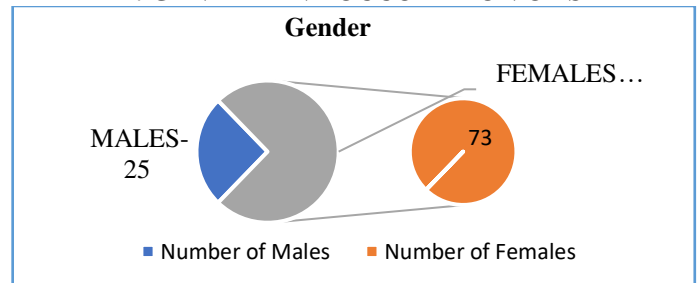
The coping strategy indicator is a 33 item, 3 point self-reporting Likert rating scale designed to assess 3 basic modes of coping- Problem Solving, Seeking Social Support or Avoidance when faced with the event of global pandemic. A self-designed questionnaire with 7 questions was designed to collect descriptive data to understand the response and activities engaged in by the subjects of study and to also understand the attitude towards coping with hope.

The respondents were asked to think about the pandemic that has caused them stress and to respond to the questionnaire with this problem in mind. The three sub scale scores were calculated summing up responses. Higher score on problem solving and seeking social behaviour and lower scores on avoidance indicates a more adjusting coping strategy whereas a higher score on avoidance as compared to problem solving and seeking social support indicates a more eluding and defensive coping strategy. A null and alternative hypothesis was developed to understand the preference of coping strategies -more of problem solving and seeking social support or more of avoidance strategy is adopted by the sample.

8. DATA ANALYSIS AND FINDINGS:
XLSTAT was used for analysing the results. Pearson's Coefficient of Correlation and Coefficient of Determination was determined. Null and Alternative Hypothesis was formulated to analyse the coping strategies.

TABLE 2: SUMMARY STATISTIC-PROBLEM SOLVING, SEEKING SOCIAL SUPPORT, AVOIDANCE

Variable	Observations	Minimum	Maximum	Mean	Std. Deviation
Problem Solving	98	12	33	23.908	4.901
Seeking Social Support	98	11	30	21.459	4.351
Avoidance	98	16	36	27.520	4.550

Summary statistics summarizes the mean and standard deviation for the 3 variables-problem solving, seeking social support and avoidance**.** The highest mean is obtained by avoidance strategy (27.52) followed by problem solving (23.91) and then seeking social support (21.46).

TABLE 3: PEARSON'S CORRELATION & COEFFICIENT OF DETERMINATION

Variable	Problem Solving	Seeking Social Support	Avoidance
Problem Solving	1	0.195	0.132
Seeking Social Support	0.195	1	-0.143
Avoidance	0.132	-0.143	1

Values in bold are different from 0 with a significance level alpha=0.05

TABLE 4: COEFFICIENT OF DETERMINATION (PEARSON)

Variables	Problem Solving	Seeking Social Support	Avoidance
Problem Solving	1	0.038	0.017
Seeking Social Support	0.038	1	0.021
Avoidance	0.017	0.021	1

The data was analysed to determine the correlation between the 3 coping strategies adopted by the subjects. There is a low positive correlation between problem solving and seeking social support (0.195), a low positive correlation between problem seeking and avoidance coping strategies but there is a low negative correlation between seeking social support and avoidance as coping strategies adopted by the subjects under study as a response to the stress caused by the pandemic.

8.1 DETAILED CALCULATIONS
Pearson Correlation Coefficient-Problem Solving and Seeking Social Behaviour

Result Details & Calculation
X Values
$\sum$ = 2343, Mean = 23.908, $\sum(X - M_x)^2$ = SS_x =2330.173
Y Values
$\sum$ = 2103, Mean = 21.459, $\sum(Y - M_y)^2$ = SS_y = 1836.337
X and Y Combined
N = 98 $\sum(X - M_x)(Y - M_y)$ = 404.133
R Calculation
r = $\sum((X - M_y)(Y - M_x)) / \sqrt{((SS_x)(SS_y))}$, r = 404.133 / $\sqrt{((2330.173)(1836.337))}$ = 0.1954
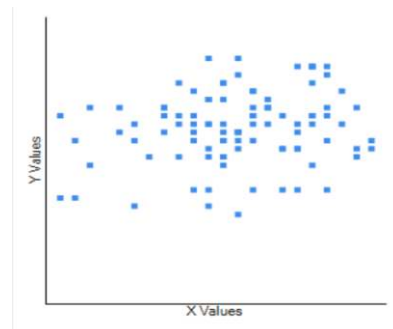*Meta Numerics (cross-check)*
r = 0.1954

Key
X: X Values, Y: Y Values
M_x: Mean of X Values, M_y: Mean of Y Values
$X - M_x$ & $Y - M_y$: Deviation scores
$(X - M_x)^2$ & $(Y - M_y)^2$: Deviation Squared
$(X - M_x)(Y - M_y)$: Product of Deviation Scores

FIGURE 1: CORRELATION PEARSON CORRELATION COEFFICIENT -PROBLEM SOLVING AND SEEKING SOCIAL BEHAVIOUR

8.2: DETAILED CALCULATIONS
Pearson Correlation Coefficient Calculator-Social Seeking Support and Avoidance
Result Details & Calculation

X Values
$\sum$ = 2103, Mean = 21.459, $\sum(X - M_x)^2$ = SS_x = 1836.337

Y Values
$\sum$ = 2697, Mean = 27.52, $\sum(Y - M_y)^2$ = SS_y = 2008.459

X and Y Combined
N = 98, $\sum(X - M_x)(Y - M_y)$ = -275.418

R Calculation
r = $\sum((X - M_y)(Y - M_x)) / \sqrt{((SS_x)(SS_y))}$, r = -275.418 / $\sqrt{((1836.337)(2008.459))}$ = -0.1434
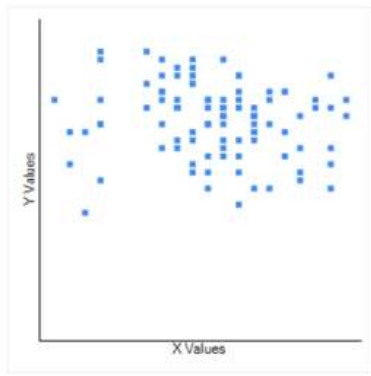
Meta Numerics (cross-check)
r = -0.1434

FIGURE 2: CORRELATION PEARSON CORRELATION COEFFICIENT -SEEKING SOCIAL BEHAVIOUR AND AVOIDANCE

8.3: DETAILED CALCULATIONS
Pearson Correlation Coefficient Calculator-Problem Solving and Avoidance
Result Details & Calculation

X Values
$\sum = 2343$, Mean = 23.908, $\sum(X - M_x)^2 = SS_x = 2330.173$

Y Values
$\sum = 2697$, Mean = 27.52, $\sum(Y - M_y)^2 = SS_y = 2008.459$

X and Y Combined
$N = 98$, $\sum(X - M_x)(Y - M_y) = 285.684$

R Calculation
$r = \sum((X - M_y)(Y - M_x)) / \sqrt{((SS_x)(SS_y))}$, $r = 285.684 / \sqrt{((2330.173)(2008.459))} = 0.1321$

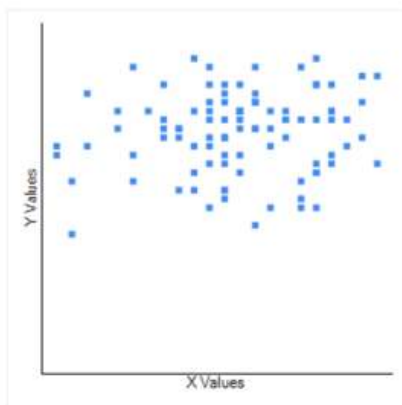*Meta Numerics (cross-check)*
r = 0.1321

FIGURE 3: CORRELATION PEARSON CORRELATION COEFFICIENT -PROBLEM SOLVING AND AVOIDANCE

8.4: NULL AND ALTERNATIVE HYPOTHESIS-AVOIDANCE COPING STRATEGY
A one-sample, upper tailed t-test was undertaken to determine whether the mean of the distribution differs significantly from the value given by the population as indicated by the Coping Strategy Indicator. At 95% confidence interval on the mean, it is computed that the p value is lower than the significance level and the null hypothesis that mean is equal to 19 (Population) is rejected and the alternative hypothesis that the mean is greater than 19 is accepted.
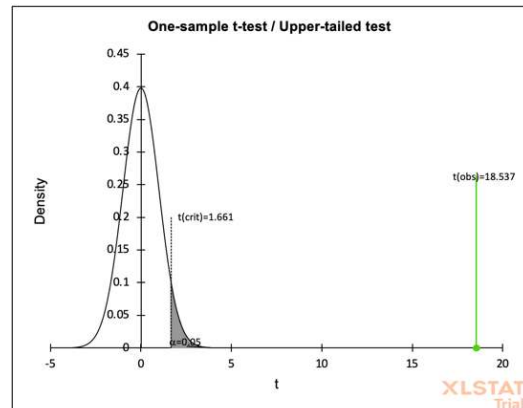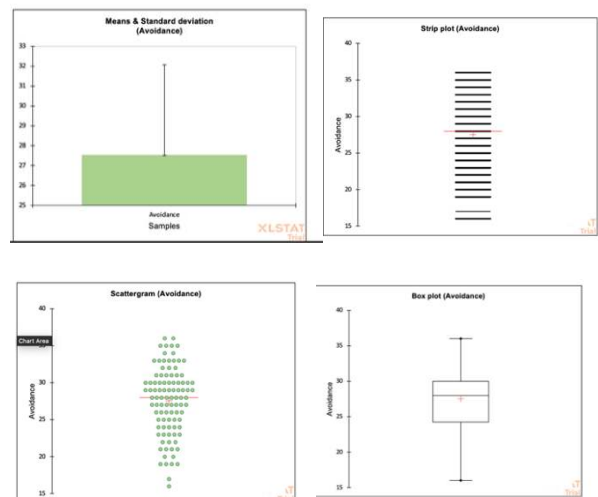
Thus, the hypothesis that during the pandemic, a perceived higher stress results in the coping strategy of avoidance being adopted more often is supported by the evidence gathered.

TABLE 5: SUMMARY STATISTIC: MEAN VALUES-AVOIDANCE COPING STRATEGY

MEAN-AVOIDANCE	NUMBER OF RESPONDENTS
Less than 19	3
Equal to 19	1
More than 19	94

TABLE 6: SUMMARY STATISTICS: ONE TAILED/UPPER TAILED TEST:

VARIABLE	AVOIDANCE
OBSERVATIONS	98
MINIMUM	16
MAXIMUM	36
MEAN	27.52
STANDARD DEVIATION	4.550

TABLE 7: TEST INTERPRETATION-95% CONFIDENCE LEVEL ON THE MEAN:

Difference	8.520
t (observed value)	18.537
t (critical value)	1.661
DF	97
p-value (one tailed)	<0.0001
alpha	0.050

FIGURE 4: ONE TAILED T-TEST/UPPER TAILED TEST-AVOIDANCE

8.5: NULL AND ALTERNATIVE HYPOTHESIS-SEEKING SOCIAL SUPPORT STRATEGY

A one-sample, two tailed t-test was undertaken to determine whether the mean of the distribution differs significantly from the value given by the population as indicated by the Coping Strategy Indicator. At 95% confidence interval on the mean, it is computed that the p value is lower than the significance level and the null hypothesis that mean is equal to 23 (Population) is rejected and the alternative hypothesis that the mean is different from 23 is accepted. During the pandemic, a perceived higher stress results in the coping strategy of seeking social support, which requires human contact during times of stress for comfort and helps to alleviate to stress being adopted by above average respondents. The mean is above the average of 23 for 61 respondents in the study and it is less than the average of 23 for 33 respondents.
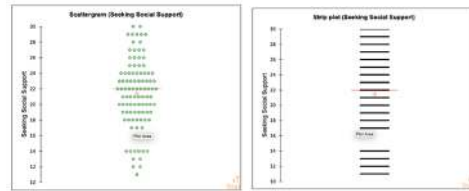
### TABLE 8: SUMMARY STATISTIC: MEAN VALUES-SEEKING SOCIAL SUPPORT COPING STRATEGY

Mean-Seeking Social Support	Number of Respondents
Less than 23	33
Equal to 23	4
More than 23	61

TABLE 9: SUMMARY STATISTICS: ONE SAMPLE t-TEST/TWO TAILED TEST:

Variable	Seeking social support
Observations	98
Minimum	11
Maximum	30
Mean	21.459
Standard deviation	4.351

TABLE 10: TEST INTERPRETATION-95% CONFIDENCE LEVEL ON THE MEAN:

Difference	-1.541
t (observed value)	-3.506
t (critical value)	1.985
DF	97
p-value (one tailed)	<0.0001
alpha	0.050
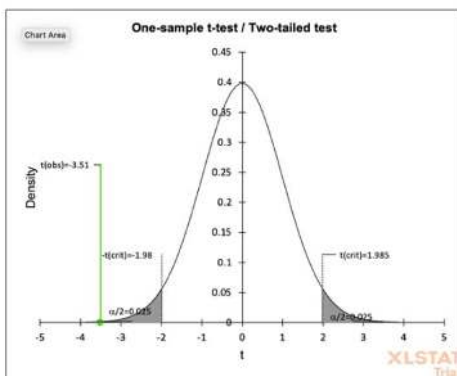
FIGURE 5: TWO TAILED T-TEST/SEEKING SOCIAL SUPPORT
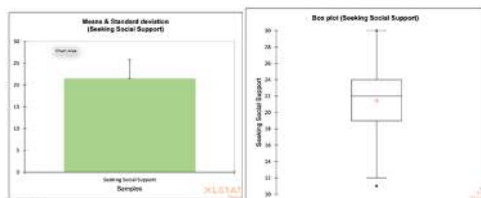
8.6: NULL AND ALTERNATIVE HYPOTHESIS-PROBLEM SOLVING STRATEGY

A one sample, lower tail test was undertaken to determine whether the mean of the distribution differs significantly from the value given by the population as indicated by the Coping Strategy Indicator. At 95% confidence interval on the mean, it is computed that the p value is lower than the significance level and the null hypothesis that mean is equal to 26 (Population) is rejected and the alternative hypothesis that the mean is lower than 26 is accepted.

Thus, the hypothesis that during the pandemic, a perceived higher stress results in the coping strategy of problem solving being adopted less often is supported by the evidence gathered.

### TABLE 11: SUMMARY STATISTIC: MEAN VALUES-SEEKING PROBLEM SOLVING COPING STRATEGY

Mean-Problem Solving	Number of Respondents
Less than 26	75
Equal to 26	3
More than 26	20

TABLE 12: SUMMARY STATISTICS: ONE SAMPLE t-TEST/LOWER TAILED TEST:

VARIABLE	PROBLEM SOLVING
OBSERVATIONS	98
MINIMUM	12
MAXIMUM	33
MEAN	23.908
STANDARD DEVIATION	4.901

TABLE 13: TEST INTERPRETATION-95% CONFIDENCE LEVEL ON THE MEAN:

Difference	-2.092
t (observed value)	-4.225
t (critical value)	-1.661
DF	97
p-value (one tailed)	<0.0001
alpha	0.050
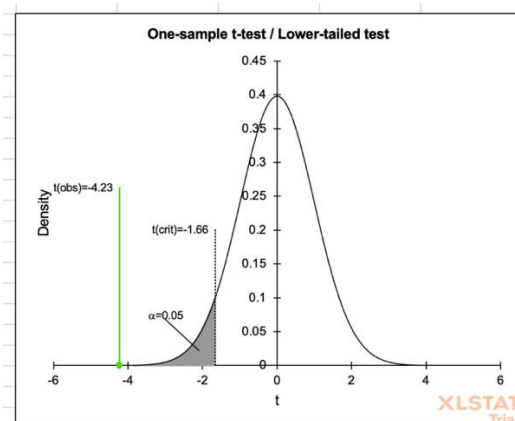
FIGURE 6: ONE TAILED LOWER TAILED TEST-PROBLEM SOLVING
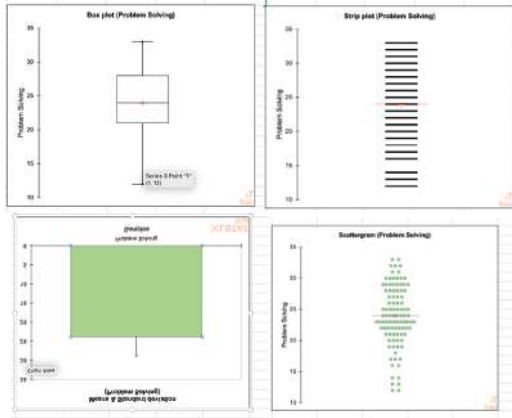
I can use my coping skills and get through this	29
Stop, and breathe, I can do this	39
These are just feelings, they will go away	29

FIGURE 7: COPING WITH HOPE-DETAILED RESPONSES

9. COPING WITH HOPE

In order to measure the ability of the student to perceive the situation positively and indulge in optimistic thinking while having a positive attitude a questionnaire with 7 questions was prepared and data collected from each student.
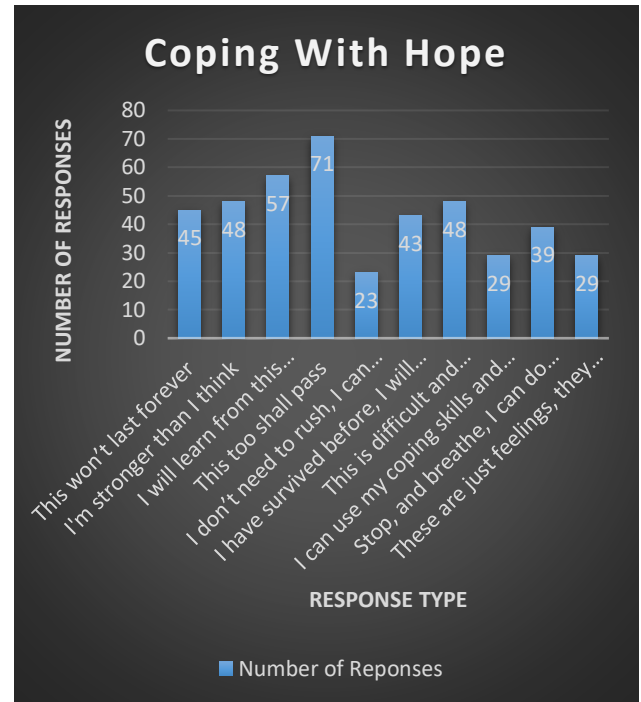
The data collected indicates that writing reading and other hobbies were more popular than engaging in art, online courses or cooking. Exercising and maintaining a balanced sleep were the more popular self-care activities than taking gardening, meditation or taking care of pets.

From the data collected, it is clearly displayed that there are a high number of respondents, who believe that the current situation shall pass and is thus, only a temporary phase. This belief held by them suggests that they believe they have no control over the situation and through optimistic thinking about the situation as a whole, they hope to overcome the current scenario. This is in line with the results that display a high use of avoidance oriented coping strategy. The second highest results have been obtained from those who believe they will learn from the experience and will have some learning from it. This attitude and set of beliefs display that students are treating the pandemic as a learning opportunity and trying the handle the stressful feelings associated with it.

This reinforces the results previously analysed that display that students use emotion-focused coping, which is aimed at managing the emotions associated with the situation, rather than changing the situation itself. Other similar responses involving the situation and emotions arising with it help us reach the same conclusion and add proof to the hypothesis that students engage in emotion-oriented coping strategies and avoidance-related coping, when they are presented with a threatening situation like the pandemic. This also provides evidence that people are perceiving the situation as temporary and that there is only a temporary change in the coping mechanisms adopted by the students.
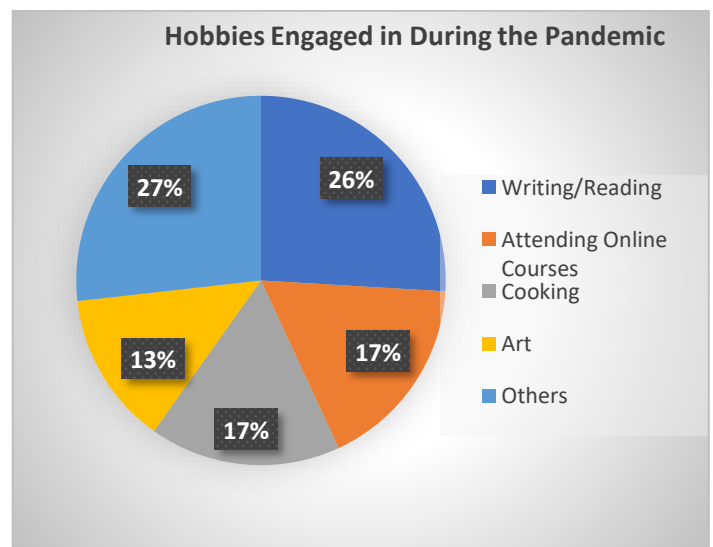
The hobbies that students engaged in, during the pandemic show that they prefer reading, writing and other activities like mild sports as the majority of their choice. This shows that they prefer activities that are involved in letting out feelings. They cope with the situation by dealing with their emotions. This is in line with students using avoidance oriented coping.

FIGURE 8: HOBBIES ENGAGED IN DURING THE PANDEMIC

TABLE 14: COPING WITH HOPE-DETAILED RESPONSES

| Coping with Hope	Responses
This won't last forever	45
I'm stronger than I think	48
I will learn from this experience, even if it seems hard to understand right now	57
This too shall pass	71
I don't need to rush, I can take things slowly	23
I have survived before, I will survive now	43
This is difficult and uncomfortable, but it is only temporary	48

The pattern of self-care activities that students indulge in, show that letting out overwhelming emotions as a priority. This is done through exercising regularly and maintaining a balanced sleep schedule. It can also be perceived that students have started sleeping more than usual, because of the focus on avoiding the threating situation. Further, there is an increased emphasis on self-care activities, involved in keeping one in good health during the pandemic.
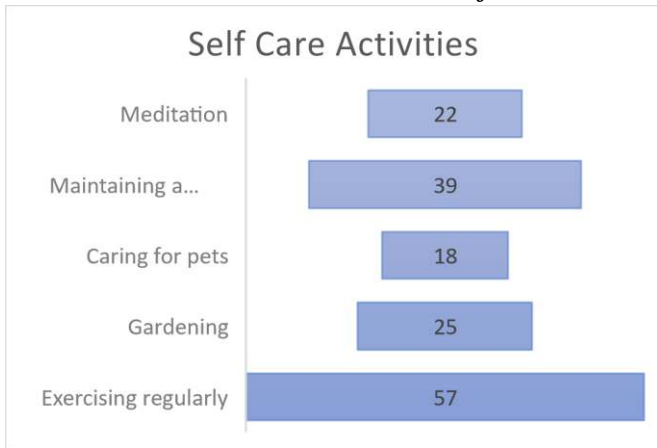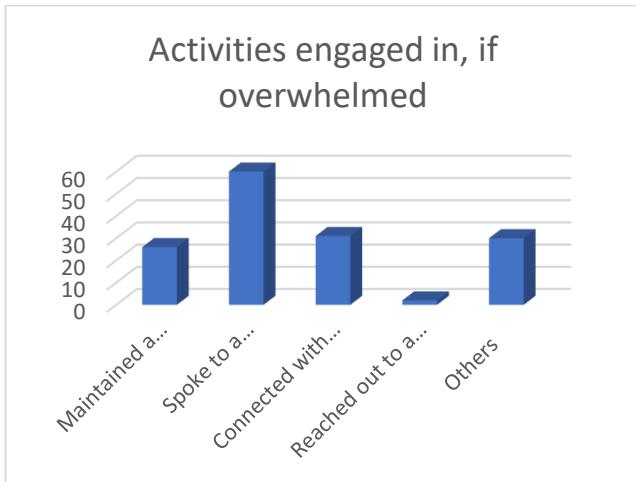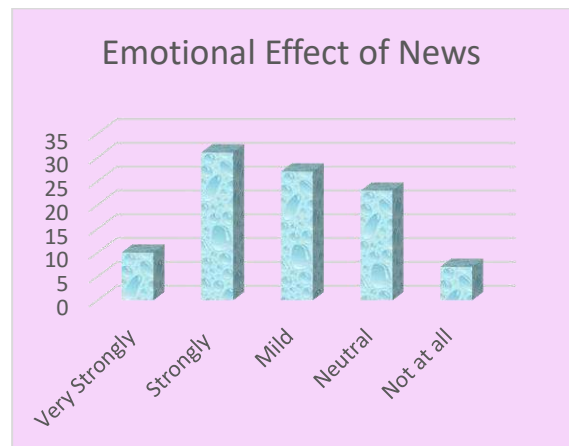
FIGURE 9: SELF-CARE ACTIVITIES

FIGURE 10: ACTIVITIES ENGAGED IN, IF OVERWHELMED

The data gathered is also a proof for increased rate of coping by seeking social support. In the pandemic, considering the overwhelming feelings and thoughts of the students, they sought guidance and reassurance from their elders, peers and parents. Venting out feelings by writing a journal is a clear indication of students coping, using the avoidance related mechanism.

The pattern of recreational activities that students preferred show that solitary and therapeutic activities like listening to music and watching films was a chosen form of coping. These provide a distraction from the situation at hand and act as a source of comfort.

FIGURE 11: RECREATIONAL ACTIVITIES ENGAGED IN

The news and media covering daily health updates can be overwhelming. It has an impact on thinking, behaviour and emotions by increasing the stress levels, which result in anxiety and also adversely affects the sleeping pattern. Half of the students have reported that they watch news for less than 20 minutes and feel that a constant exposure to news increases anxiety and mental health. This is a strategy adopted to reduce exposure overconsumption of news.

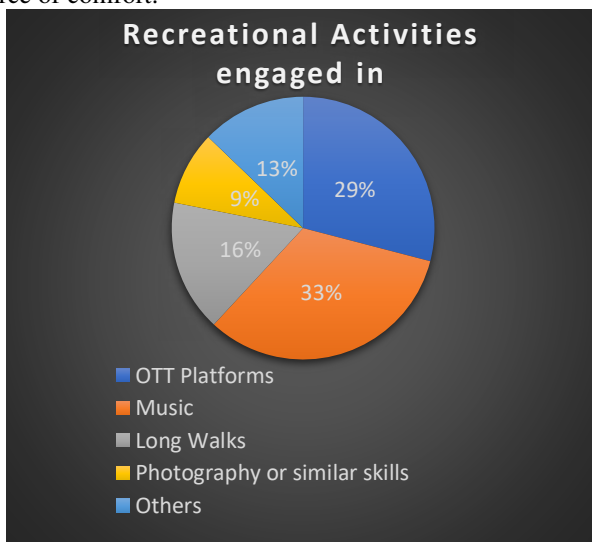**FIGURE 12: TIME SPENT WATCHING THE NEWS**

FIGURE 13: EMOTIONAL EFFECT OF NEWS

10. CONCLUSION
The study undertaken shows students during the pandemic adopted all the three coping strategies of problem solving, seeking social support and avoidance. Further, the students adopt higher avoidance coping strategies than problem solving and seeking social support coping strategy during a pandemic. This indicates that students have less control and have a lower confidence in these stressful times and they adopt more of emotion oriented and avoidance oriented coping strategies. Students engage in hobbies like reading, writing and other activities like mild sports. The students cope with the stressful situation by dealing with their emotions in line with students using avoidance-oriented coping. The pattern of self-care activities shows that students let out overwhelming emotions as a priority. The pattern of recreational activities shows preference for solitary and therapeutic activities which serve as a source of distraction and are a source of comfort in these times. The students avoid overexposure to news as media and news are viewed as a source of increased anxiety and detrimental to mental health. However, family and social support helped to reduce avoidance-oriented coping.

11. ACKNOWLEDGEMENTS

12. REFERENCES

[1] Endler, N. S., & Parker, J. D. (1990). Multidimensional assessment of coping: A critical evaluation. *Journal of Personality and Social Psychology, 58*(5), 844–854. https://doi.org/10.1037/0022-3514.58.5.844

[2] Folkman, S., & Moskowitz, J. T. (2000). Positive affect and the other side of coping. *American Psychologist, 55*(6), 647–654. https://doi.org/10.1037/0003-066X.55.6.647

[3] Zeidner, M., & Saklofske, D. (1996). Adaptive and maladaptive coping. In M. Zeidner & N. S. Endler (Eds.), *Handbook of coping: Theory, research, applications* (pp. 505–531). John Wiley & Sons.

[4] Melanie J. Zimmer-Gembeck, Ellen A. Skinner, Kathryn L. Modecki, Haley J. Webb, Alex A. Gardner, Tanya Hawes & Ronald M. Rapee | Sebastiano Costa (Reviewing editor) (2018) The self-perception of flexible coping with stress: A new measure and relations with emotional adjustment, Cogent Psychology, 5:1, DOI: 10.1080/23311908.2018.1537908

[5] McWilliams, L.A., Cox, B.J. and Enns, M.W. (2003) Use of the Coping Inventory for Stressful Situations in a Clinically Depressed Sample: Factor Structure, Personality Correlates, and Prediction of Distress. Journal of Clinical Psychology, 59, 423-437.https://doi.org/10.1002/jclp.10080

[6] Mariani R, Renzi A, Di Trani M, Trabucchi G, Danskin K and Tambelli R (2020) The Impact of Coping Strategies and Perceived Family Support on Depressive and Anxious Symptomatology During the Coronavirus Pandemic (COVID-19) Lockdown. *Front. Psychiatry* 11:587724. doi: 10.3389/fpsyt.2020.587724

[7] Coping with Stress: Strategies Adopted by Students at the Winneba Campus of University of Education, Winneba, Ghana Esia-Donkoh, Kweku; Yelkpieri, Daniel; Esia-Donkoh, Kobina *Online Submission*, US-China Education Review B 2 p290-299 2011.