

STUDY ON CAUSES AND EFFECTS OF STRESS

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INTRODUCTION

brought on by difficult or demanding situations.

DEFINITION OF STRESS

Stress is a physical, mental, or emotional component that generates physical or mental tension in a medical or biological environment. Stresses can be internal or external (resulting from situations in the outside world, the mind, or society) (illness, or from a medical procedure). The "fight or flight" response, a complicated endocrinologic and neurologic response, can be brought on by stress.

Any shift that creates strain on the body, mind, or emotions is referred to be stress. Your body's reaction to anything that demands focus or action is stress.

GAS Model of Stress:

Hans Selye was a Hungarian endocrinologist. He invented the term "stress" during the 1930s

1. He conducted pioneering experiments on stress during the 1950s and '60s
2. He discovered the General Adaptation Syndrome by accident, while injecting mice for hormone research.
3. Turns out both good and bad stressors result in the GAS.

According to Selye GAS involves three stages –

1. Alarm Reaction Stage
2. Resistance
3. Exhaustion

Alarm Reaction Stage: The adrenal pituitary-cortex system becomes activated in the presence of a noxious stimulus or stressor. This causes the chemicals that cause the stress response to be released. The person is now prepared to either fight or flee.

Resistance Stage: The resistance stage starts when stress lasts for a long time. The parasympathetic nervous system recommends using the body's resources more sparingly. The creature tries to deal with the threat by engaging in conflict.

Third Stage of Exhaustion: The third stage of exhaustion is brought on by continued exposure to the same stressor or additional stressors, which depletes the body's resources. The physiological mechanisms responsible for alarm response and resistance deteriorate and are more prone to stress-related illnesses including high blood pressure and heart problems.

EVALUATION OF THE GAS METHO

1. It was an early attempt to explain the physiological reactions the body has to stress.
2. By establishing a relationship between stress and sickness, it changed the course of history.
3. According to Mason (1995) and other researchers, a person's perception of a stressor affects how much adrenaline and cortisol is produced. So, assuming that every stressor results in this type of behaviour is biased.
4. It disregards a person's personality, psychological makeup, and gender. Perceptions, personalities, and biological make-up play a significant role in how people react to stress.
5. The majority of the supporting data comes from studies with animals.

TYPES OF STRESS

There are three types of stress — acute stress, episodic acute stress, and chronic stress,

1. **Acute Stress:** The most prevalent type of stress is acute stress. It results from current needs and tensions as well as predicted demands and pressures for the foreseeable future. In moderation, acute stress is fascinating and stimulating, but too much of it is draining. For instance, a quick run down a difficult ski slope is thrilling early in the day. Late in the day, the same ski run is tiring and exhausting. Skiing outside your comfort zone might result in accidents and fractures. Likewise, experiencing too much short-term stress can cause symptoms including psychological distress, tension headaches, stomachaches, and others.

2. **Episodic Acute stress:** Acute stress episodes are referred to as episodic acute stress. If you frequently feel apprehensive and concerned about potential outcomes, this may occur. You can feel as though your life is chaotic and that crises seem to follow one another. There may be frequent high-stress situations in some vocations, including law enforcement or firefighting. Episodes of acute stress can have a negative impact on your physical and mental health, just like severe acute stress does.

3. **Chronic Stress:** Chronic stress is when your stress levels are high for an extended length of time. This kind of ongoing tension can be harmful to your health. It might lead to:

- i. Anxiety
- ii. cardiovascular disease
- iii. depression
- iv. high blood pressure
- v. a weakened immune system

Chronic stress can also lead to frequent ailments such as headaches, an upset stomach, and sleep difficulties

CAUSES OF STRESS

Stress is typically brought on by occurrences in your life that involve:

1. Experiencing significant changes while being under pressure
2. Worrying about something,

3. Not having much or any control over how something will turn out,
4. Being overburdened with duties
5. Not doing enough work or engaging in enough activities,
6. Living in uncertain times.

You may be under stress due to a single major event, but stress can also develop over time as a result of a number of other stresses.

EFFECT OF STRESS ON HEALTH AND PERFORMANCE

In fact, the effects of stress can be felt in your body, mind, and behaviour. Understanding typical stress symptoms might help you manage them. Unmanaged stress can be a factor in a number of health issues, including high blood pressure, heart disease, obesity, and diabetes.

Body effects of stress include:

1. Headache
2. muscle ache or stress
3. chest discomfort
4. Fatigue
5. alteration in sex drive
6. upset stomach
7. issues with sleep

How Stress Affects Your Mood

1. Anxiety
2. Restlessness
3. a lack of drive or attention
4. Easily irritated or angry
5. Depression or sadness

Stress's Impact on Your Behavior:

1. Eating too much or too little
2. Furious outbursts
3. abuse of drugs or alcohol
4. nicotine use
5. Social isolation
6. Exercise less frequently

STRESS MANAGEMENT

Effective stress management helps you break the hold stress has on your life, so you can

be happier, healthier, and more productive. The ultimate goal is a balanced life, with time for work, relationships, relaxation, and fun—and the resilience to hold up under pressure and meet challenges head on.

INEFFECTIVE STRATEGIES-

Defense

Mechanisms

1. Rationalization
2. Projection
3. Reaction Formation
4. Regression
5. Repression
6. Displacement
7. Sublimation

EFFECTIVE STRATEGIES-

1. Relaxation training
2. Yoga

Keywords: Stress, Causes, Effects, Stressors

REVIEW OF LITERATURE

1. Subramani and Kadhiravan (2017) found a connection between student mental health and academic stress. He agreed that students are constrained by the academic system and that there is a link between academic stress and mental health. In addition, there is not enough assistance from parents and schools in terms of guidance, which demoralises pupils by placing excessive pressure on them to achieve better results. When students contribute positively to the academic forums, they are in good mental health. They also suggested that because private school students receive more homework and other academic-related responsibilities than children at government schools, they are under more pressure. There was a noticeable disparity between the mental health of children in private and public schools. He claimed that government school pupils, who come from a low socioeconomic background and lack of experience, receive less caring and exposure than their private school counterparts. This is one of the factors contributing to the rise in stress.

2. In their study, Reddy et al. (2018) found that there are differences in students' levels of stress according to their stream. Stress management is crucial on a personal, social, and institutional level. It has been discovered that stress management techniques like feedback, yoga, life skills training, mindfulness, meditation, and psychotherapy are effective. The key to managing stress is figuring out what causes it in the first place. Experts can provide customised stress management plans. The holistic well-being of the students is crucial for both the institution and the individual student.

RESEARCH

Aim:

To study the causes and effects of stress among school students.

Objective:

To study the causes and effects of stress among school students aged between 16-17 years.

Operational definitions:

1. Stress can be defined as any type of change that causes physical, emotional, or psychological strain. Stress is your body's response to anything that requires attention or action.
2. The causes of stress are coined as stressors. This occurs in two forms: external and internal. External stressors include major life events such as job loss, loss of a loved one or demand placed by the physical environment such as excessive lighting or noise. Internal stressors occur within us. We add internal stressors to our lives for example, if we have unrealistic expectations, negative self-talks or choose a lifestyle where there is excessive caffeine and alcohol and constant lack of sleep.
3. Effect of Stress: Effects of stress can be both physical and psychological. Physical stress: trauma (injury, infection, surgery), intense physical labor/over-exertion, environmental pollution (pesticides, herbicides, toxins, heavy metals, inadequate light, radiation, noise, electromagnetic fields), illness (viral, bacterial, or fungal agents), fatigue, inadequate oxygen supply, hypoglycemia I(low blood sugar), hormonal and/or biochemical imbalances, dietary stress (nutritional deficiencies, food allergies and sensitivities, unhealthy eating habits), dehydration, substance abuse, dental challenges, and musculoskeletal misalignments/imbalance.
4. Psychological stress: emotional stress (resentments, fears, frustration, sadness, anger, grief/bereavement), cognitive stress (information overload, accelerated sense of time, worry, guilt, shame, jealousy, resistance, attachments, self-criticism, self-loathing, unworkable perfectionism, anxiety, panic attacks, not feeling like yourself, not feeling like things are real, and a sense of being out of control/not being in control), and perceptual stress (beliefs, roles, stories, attitudes, world view).

Sampling Technique:

Random sampling technique.

Sample size:

20 students from grade 11 from a school in urban Bangalore. 20 students consist of- 10 boys and 10 girls.

Tools:

Two 5 point rating scales:

1. Inventory for stressors- 20 items, in checklist A there are three positively worded items and 17 negatively worded items, the broad categories are: academic causes, inter-personal relationship causes, family related causes, social expectation causes and COVID 19 related causes.
2. Inventory for effects of stress- 20 items, in checklist B there is 1 positively worded item and 19 negatively worded items, the broad categories are: physical and psychological effects.

Methodology:

Due to the COVID-19 pandemic, the entire study had to be conducted online via email. First, the consent forms were sent out to the participants and after getting their consent, two checklists- checklist A, causes of stress and checklist B, effects of stress, were sent out to them to fill. After it was filled, the scores were calculated which led to the conclusion.

Instruction:

Here is a questionnaire with 15 items. Each of these items have five response choices. You need to tick the response or color the box green that suits you most based on an average of your feelings for the last three months. There is no right or wrong answer. Try to avoid marking option 3 as much as possible, and try to work as fast as possible.

(In the name slot given below ensure to fill in only your initials. Example: if your name is Shriya Bafna, you would write SB.)

Scoring:

The frequencies of occurrence of responses were determined by multiplying the number of responses (for each option) with the corresponding point on the Likert scale (5, 4, 3, 2, 1).

NO. OF RESPONSES* POINT ON LIKERT SCALE

The total value for each question was determined by adding up the responses under each response, and the mean was calculated by dividing the total value with 10 for each response.

In checklist A all items are scored as follows:

5- Strongly agree

4- Agree

3- Sometimes

2- Disagree

1 – Strongly disagree

Except, item number 3,7,20 which are scored as follows:

1 – Strongly agree

2- Agree

3- Sometimes

4- Disagree

5- Strongly disagree

While in checklist B all items are scored as follows:

5- Strongly agree

4- Agree

3- Sometimes

2- Disagree

1 – Strongly disagree

Except, item number 5 which is scored as follows:

1 – Strongly agree

2- Agree

3- Sometimes

4- Disagree

5- Strongly disagree

Table 1(a) – showing the mean scores of causes of stress (checklist A) for boys.

QUESTIONS	Strongly agree	Agree	Sometimes	Disagree	Strongly disagree	TOTAL	MEAN
I Am constantly worried about what I need to do after 12 th .	5	8	9	6	1	29	2.9
I get worked up because of school workload.	5	4	15	6	0	30	3
I am able to complete my assignments and studies on time.	0	6	12	12	0	30	3
I get stressed thinking about my exam results.	5	8	6	6	2	27	2.7
I am having difficulties	0	0	4	8	5	17	1.7

adjusting with my friends.							
I feel left out most of the time.	0	0	0	12	4	16	1.6
I do not have any issues in initiating conversations with my friends.	6	4	0	4	5	19	1.9
I feel pressured by my friends.	0	0	0	8	6	14	1.4
My parents constantly fight.	0	4	6	10	2	22	2.2
My parents and I are never on the same page.	0	8	12	8	0	28	2.8
My parents have huge expectations from me.	15	4	6	4	2	31	3.1
I feel like I have no freedom to make my own decisions.	5	4	0	4	6	19	1.9
Looking at other people's extravagant lives on social media, I	0	0	3	6	6	15	1.5

feel insecure or jealous.							
I find it a necessity to post something about my life every now and then to avoid feeling excluded.	0	4	0	4	7	15	1.5
I constantly feel that my body is being judged.	0	0	0	14	3	17	1.7
I feel like I need to look good to be accepted by society.	5	0	9	4	4	22	2.2
I am not happy with the way I look.	0	0	3	4	7	14	1.4
I feel exhausted constantly worrying about my health due to COVID-19.	5	0	9	8	2	24	2.4
I feel helpless and sad as I cannot go out often due to the pandemic.	10	0	12	6	1	29	2.9

I am able to comfortably move on with my life despite the COVID-19 situation.	2	8	12	0	0	22	2.2
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Table 1(b) - showing the mean scores of effects of stress (checklist B) for boys.

QUESTIONS	Strongly agree	Agree	Sometimes	Disagree	Strongly disagree	TOTAL	MEAN
1. I feel very anxious.	5	0	15	6	1	27	2.7
2. I tend to forget a lot these days.	5	8	6	8	1	28	2.8
3. I have not been able to manage my emotions in difficult situations.	5	0	9	12	0	26	2.6
4. I often find myself procrastinating.	5	24	3	4	0	36	3.6
5. I always find myself calm and relaxed.	1	4	9	16	0	30	3

6. I have to force myself to wake up everyday.	5	12	12	2	1	32	3.2
7. I have trouble sleeping.	10	8	6	8	0	32	3.2
8. I get upset by unimportant or small things.	0	0	9	12	1	22	2.2
9. I am easily agitated or annoyed.	5	5	12	8	0	30	3
10. I frequently experience mood swings.	5	0	3	14	1	23	2.3
11. I frequently experience difficulty in making decisions.	5	0	6	14	0	25	2.5
12. I feel I am falling ill a lot these days.	0	0	0	10	5	15	1.5
13. I am worried that my appetite has changed from before.	10	4	6	6	2	28	2.8
14. I find myself thinking about problems	5	8	12	4	1	30	3

even when I am relaxing.							
15. I tend to avoid socializing a lot these days.	0	0	9	12	1	22	2.2
16. I feel that difficulties are piling up so high that I cannot overcome them.	5	0	9	10	1	25	2.5
17.I often find myself with headaches.	0	0	6	12	2	20	2
18. I often find myself with back pain.	5	0	0	12	3	20	2
19. I often find myself with neck pain.	5	0	6	10	2	23	2.3
20. I often find myself having difficulty concentrating.	5	4	18	4	0	31	3.1

Table 2(a) - showing mean scores for causes of stress (checklist A) for girls.

QUESTIONS	Strongly agree	Agree	Sometimes	Disagree	Strongly disagree	TOTAL	MEAN
I am constantly worried about what I need to do after 12 th .	25	12	3	2	0	42	4.2
I get worked up because of school workload.	15	24	0	2	0	41	4.1
I am able to complete my assignments and studies on time.	1	2	12	0	10	25	2.5
I get stressed thinking about my exam results.	20	12	3	4	0	39	3.9
I am having difficulties adjusting with my friends.	5	12	3	2	4	26	2.6
I feel left out most of the time.	0	4	12	2	4	22	2.2
I do not have any issues in initiating conversations with my friends.	1	8	3	0	0	12	1.2
I feel pressured by my friends.	0	0	0	10	5	15	1.5

My parents constantly fight.	15	0	6	2	4	27	2.7
My parents and I are never on the same page.	5	0	6	12	1	24	2.4
My parents have huge expectations from me.	20	16	3	2	0	41	4.1
I feel like I have no freedom to make my own decisions.	5	0	3	8	4	20	2
Looking at other people's extravagant lives on social media, I feel insecure or jealous.	0	4	12	4	3	23	2.3
I find it a necessity to post something about my life every now and then to avoid feeling excluded.	0	8	3	4	5	20	2
I constantly feel that my body is being judged.	15	12	3	6	0	36	3.6
I feel like I need to look good to be accepted by society.	10	8	12	2	1	33	3.3

I am not happy with the way I look.	10	4	3	8	2	27	2.7
I feel exhausted constantly worrying about my health due to COVID-19.	10	0	6	8	2	26	2.6
I feel helpless and sad as I cannot go out often due to the pandemic.	5	16	0	6	2	29	2.9
I am able to comfortably move on with my life despite the COVID-19 situation.	1	10	3	0	15	29	2.9

Table 2(b) - showing mean scores for effects of stress (checklist B) for girls.

QUESTIONS	Strongly agree	Agree	Sometimes	Disagree	Strongly disagree	TOTAL	MEAN
I Feel very anxious.	10	20	6	2	0	38	3.8
I tend to forget a lot these days.	0	16	3	8	1	28	2.8
I have not been able to manage my emotions in difficult situations.	10	8	3	6	2	29	2.9
I often find myself procrastinating.	20	16	6	0	0	42	4.2
I always find myself calm and relaxed.	1	0	6	24	5	36	3.6
I have to force myself to wake up everyday.	0	16	6	6	1	29	2.9
I have trouble sleeping.	0	20	3	4	2	29	2.9
I get upset by unimportant or small things.	15	20	3	2	0	40	4
I am easily agitated or annoyed.	5	24	6	2	0	37	3.7
I frequently experience mood swings.	20	8	9	2	0	39	3.9

I frequently experience difficulty in making decisions.	15	12	6	4	0	37	3.7
I feel I am falling ill a lot these days.	5	0	0	8	5	18	1.8
I am worried that my appetite has changed from before.	20	8	3	4	1	36	3.6
I find myself thinking about problems even when I am relaxing.	10	8	12	2	1	33	3.3
I tend to avoid socializing a lot these days.	0	8	0	8	4	20	2
I feel that difficulties are piling up so high that I cannot overcome them.	0	4	9	6	3	22	2.2
I often find myself with headaches.	20	8	3	4	1	36	3.6
I often find myself with back pain.	5	12	3	8	1	29	2.9
I often find myself with neck pain.	0	8	6	8	2	24	2.4
I often find myself having difficulty concentrating.	10	24	3	2	0	39	3.9

Result & Discussion:

Looking at table 1(a), we can see that items 1, 2, 3, 4, 10, 11, and 19, which have a mean score of 2.9, 3, 3, 2.7, 2.8, 3.1, and 2.9 respectively are the most common causes of stress among teen boys. These include- academic causes, family related causes, and causes due to the COVID-19 pandemic. While, items 8, 13, 14, and 17, which have a score of 1.4, 1.5, 1.5, and 1.4 respectively are the least common causes of stress among teen boys. These include- interpersonal relationships related causes and social expectations causes.

Looking at table 1(b), we can see that items 4, 5, 6, 7, 9, 14, and 20 which have a mean score of 3.6, 3, 3.2, 3.2, 3, 3, and 3.1 respectively are the most common effects of stress among teen boys. These include- procrastination, forcefully waking up, having trouble sleeping, easily getting annoyed or agitated, constantly thinking about problems, and having difficulty in concentrating. It is also seen that they are usually calm and relaxed. While, item 12 which has a score of 1.5 is the least common effect of stress among teen boys. It includes- falling ill often.

Looking at table 2(a), we can see that items 1, 2, 4, 11, and 15 which have a mean score of 4.2, 4.2, 3.9, 4.1, and 3.6 respectively are the most common causes of stress among teen girls. These include- academic causes, family related causes, and social expectations causes. While, items 6, 7, 8, 12, 13, and 14 which have a score of 2.2, 1.2, 1.5, 2, 2.3, and 2 respectively are the least common causes of stress among teen girls. These include- interpersonal relationships related causes, a few aspects of family related causes, and a few aspects of social expectations causes.

Looking at table 2(b), we can see that items 1, 4, 9, 10, 11, and 20 which have a mean score of 3.8, 4.2, 3.7, 3.9, 3.7, and 3.9 respectively are the most common effects of stress among teen girls. These include- anxiety, procrastination, getting agitated and annoyed easily, mood swings, difficulty in making decisions, and difficulty in concentrating. While, items 12, 15, and 16 which have a score of 1.8, 2, and 2.2 are the least common effects of stress among teen girls. These include- falling ill often, avoiding socializing, and overcoming difficulties.

However, there are individual differences (i.e, some score low or higher on particular causes and effects than others).

Conclusion:

The most common causes of stress for both boys and girls are academic causes and family related causes and the least common cause of stress is interpersonal relationship related causes. However, we can also observe that girls find social expectations more stressful than boys.

The most common effects of stress for both boys and girls are procrastination, easily getting annoyed or agitated, and finding it difficult to concentrate and the least common effect of stress is falling ill often. However, girls also seem to experience more mood swings compared to boys which could be due to various other reasons like hormonal imbalances.

CHECKLIST A:

QUESTIONS	Strongly agree	Agree	Sometimes	Disagree	Strongly disagree
1. I am constantly worried thinking about what I need to do after 12 th .					
2. I get worked up because of school workload.					
3. I am able to complete my assignments and studies on time.					
4. I get stressed thinking about my exam results.					
5. I am having difficulties adjusting with my friends.					
6. I feel left out most of the times.					
7. I do not have any issues in initiating conversations with my friends.					
8. I feel pressurized by my friends.					
9. My parents constantly fight.					
10. My parents and I are never on the same page.					
11. My parents have huge expectations from me.					
12. I feel like I have no freedom to make my own decisions.					
13. Looking at other people's extravagant lives on social media, I feel insecure or jealous.					
14. I find it a necessity to post something about my life every now and then to avoid feeling excluded.					
15. I constantly feel that my body is being judged.					
16. I feel like I need to look good to be accepted by the society.					
17. I am not happy with the way I look.					
18. I feel exhausted constantly worrying about my health due to COVID-19.					
19. I feel helpless and sad as I cannot go out often due to the pandemic.					
20. I am able to comfortably move on with my life despite the COVID-19 situation.					

CHECKLIST B:

QUESTIONS	Strongly agree	Agree	Sometimes	Disagree	Strongly disagree
1. I feel very anxious.					
2. I tend to forget a lot these days.					
3. I have not been able to manage my emotions in difficult situations.					
4. I often find myself procrastinating.					
5. I always find myself calm and relaxed.					
6. I have to force myself to wake up everyday.					
7. I have trouble sleeping.					
8. I get upset by unimportant or small things.					
9. I am easily agitated or annoyed.					
10. I frequently experience mood swings.					
11. I frequently experience difficulty in making decisions.					
12. I feel I am falling ill a lot often these days.					
13. I am worried that my appetite has changed from before.					
14. I find myself thinking about problems even when I am relaxing.					
15. I tend to avoid socializing a lot these days.					
16. I feel that difficulties are piling up so high that I cannot overcome them.					
17. I often find myself with headaches.					
18. I often find myself with back pain.					
19. I often find myself with neck pain.					
20. I often find myself having difficulty in concentrating.					

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