Studying the Psychological Effects of Stress, Anxiety, and Depression on Secondary School Students

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Abstract
This study is an attempt to compare the levels of Stress, Anxiety and Depression among secondary school students. To fulfill the purpose of this study, the DASS-21 Scale, developed by Lovibond S. H & Lovibond P.F (1995), was tested on total 120 (60 boys and 60 girls) students of secondary school students of Himachal Pradesh, were randomly selected by giving a fair representation to different schools. To achieve the stated objective of the study the Mean and Standard Deviation (S.D) for score on different variables were calculated for selected sample and further ‘t’ test was used to find out significant difference of secondary school students with respect to Gender (60 male & 60 female students). The findings show that there is no significant difference between Stress, Anxiety and Depression on gender base (male & female) at 0.05 levels. The results highlight the necessity of giving secondary school students’ general wellbeing and mental health support top priority. Even though there are only minor variations in particular mental health difficulties, this does not mean that these problems should be ignored. All pupils’ wellbeing can be improved by making an environment that is encouraging and nurturing for them.

Keywords: Stress, Anxiety, Depression, Secondary School Students, Gender

1. Introduction
A secondary school student’s stage is crucial development of human beings in which physical, emotional, social and intellectual aspects of development occurs. These developmental changes can sometimes lead to mental health disorders like stress, anxiety and depression which are tend to occur in students. Depression as well as anxiety has widely been recognized by WHO. These are considered as two major challenging mental problems of health that arise the stage of teenage. Hence, it is the prime need of the hour to find out the causes of deterioration in mental health in secondary school students. Academic related events in secondary schools may influence students’ mental health which is believed to be major stressors. Moreover, secondary school students fall under the age of adolescents and always considered to be full of energy and bright hope of the future. At this stage they feel uncomfortable with their awkward physical changes and mental ability. The backbone of mental being is a high quality of life style. Adolescents with positive feelings grow into happy and confident adults. There are 20% adolescents in worldwide that experience common issues related to mental well-being like anxiety or
depression in any sort of situation they face in their life. According to Abolarin's (2010) definition, adolescence is the stage when an individual begins to work independently of their parents. In both Western and African cultures, it is generally acknowledged that this is a crucial time for development. Adolescence is frequently described as a time of "storm and stress" by behavioural experts.

In India Adolescents’ parents have very high academic and co-curricular expectations from them which leads academic stress among them. Further it reveals a variety of behavioural and mental health problems. A study conducted by NCRB related to academic stress mention that there is high rate of suicides committed in India due to failure in examinations. The problem becomes fatal when they started isolating themselves from their family members, relatives and friend. As a result, it causes them psychological and academic stress, anxiety and depression.

Adolescence is thus marked by profound physical, emotional, intellectual, and social changes. Stress defines social roles, connections, and expectations. Some adolescents suffer anxiety and an overpowering sense of fear during this stage, while others may experience a loss of confidence and a sense of disease. Thus, in the current world of achievement, which is termed an age of worry and stress, every individual experiences many stressful events from birth to death.

1.1 Definitions

a) Stress
According to Steinberg and Ritzmann (1990), "Stress can be described as either an under load or an overflow of matter, energy, or information input to or output from a living system."

b) Anxiety
According to Spielberger, (1983), "Anxiety is defined as the subjective sensations and tension, anxiety, uneasiness, and worry linked with an autonomic nervous system activation." Barlow (2002), "Anxiety is a state of emotional arousal, worry about perceived threats, cognitions relating specific worries, impaired attention, and physical symptoms such as sweating, muscle tension, heart palpitations, and difficulty breathing.

c) Depression
Depression is a psychological condition that is characterized by an ongoing feeling of sadness and absence of interest. It has an impact of how you feel, think, and behave, and can lead to a variety of physically and mentally difficulties. It's also known as major depressive disorder or clinical depressed mood (Association., 2013).

During this time, they are subjected to a variety of stresses, including academic load, familial conflict, and interpersonal coordination, which may result in a variety of psychological issues due to their relatively low tolerance for external pressure or change (Eskin, Ertekin, Harlak et al., 2008). Secondary school pupils are prone to depression and anxiety when under such stress. And depression can have a detrimental impact on person’s overall development as well as their academic performance. As a result, students suffering from depression cannot simply decide to become better. Despite their desire to recover, they are unable to deal with the major condition of depression. Academic pressures include evaluations, ongoing assessment, academic performance, learning materials, and exams might cause pupils to develop depressive disorders (Inam, Saqib&Alam, 2003). Some kids experience depression as a result of this pressure. Without realizing they are depressed, they could cry nonstop, skip courses, or isolate themselves as a way of expressing their misery. According to earlier studies, depression is a common occurrence among college students. Mahmoud, Staten, Hall, and Lennie (2012); Eller, Aluoja,
Vasar & Veldi (2008). A student's professional career can be severely hampered by depression. Suicidal ideas, negative attempts of criminal activities, poor academic performance, physical complaints, and unsatisfactory performance outcomes originate from depression (Ibrahim, Kelly, Adams & Glazbrook, 2013). Because depression typically manifests at such a young age, university students tend to experience it more frequently, and the prevalence of the condition appears to be rising (Reavley and Jorm, 2010).

Core Parts:

**Stress:** The body's response to difficult or dangerous situations causes physiological, psychological, and behavioural changes. Work stress, marital issues, and financial worries might cause it.

**Cognitive and physiological symptoms of anxiety** include excessive concern, fear, and apprehension. Anxiety disorders can cause uneasiness, tension, and hypervigilance.

**Depression:** Persistent sadness, hopelessness, and loss of interest or pleasure in activities. Depression can cause social isolation, eating and sleep problems, and suicidal thoughts.

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**Fig.1 Conceptual Framework Understanding Stress, Anxiety, and Depression: The Triadic Framework**

2. **Literature Review**

Shaik, Doke, and Gothankar (2018) examined rural teenage students' stress, anxiety, and depression at 44%, 60%, and 54% in Pune and Nanded's rural block. Pune students and Nanded rural students reported greater rates of worry, stress, and depression.

Bhatia and Kumari (2021) examined depression, anxiety, and stress in two Ambala schools' teenagers. The researchers gave students in classes IX and X the Depression, Anxiety, and Stress Scale - 21 to compare psychological discomfort. They found no statistically significant changes in depression, anxiety, and stress between classes IX and X. These findings support prior studies demonstrating teenage mental health difficulties do not vary by school level (Reavley & Jorm, 2010).
2.2 Objectives of the Research:
2.2.1 To compare the level of anxiety, stress, and depression on the basis of gender
2.2.2 To compare the level of anxiety, stress, and depression on the basis of male
2.2.3 To compare the level of anxiety, stress, and depression on the basis of female

2.2 Hypothesis of the Research:
2.3.1 There will be no significant difference between stress, anxiety and depression on gender basis.
2.3.2 There will be no significant difference between stress, anxiety and depression on male basis.
2.3.3 There will be no significant difference between stress, anxiety and depression on female basis.

3. Methodology
1. Nature of the study: This study is descriptive in nature.
2. Data: Essentially primary data were employed for the purpose of this investigation. The data were gathered through a structured questionnaire that was piloted in the field before being finalized and administered. Survey.
3. The survey was administered during April-June 2022.

3.1 Sampling and Participants
The study was carried out in the district Sirmour of H.P. It was conducted among the 120 students (60 boys & 60 girls). The study's goals and rationale were thoroughly explained to all participants. Respondents were assured that their responses would be kept unidentified and used exclusively for research.

<table>
<thead>
<tr>
<th>Gender Basis</th>
<th>Akal Model School</th>
<th>Bongli School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls</td>
<td>30</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Boys</td>
<td>30</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Total Gender Wise</td>
<td>60</td>
<td>60</td>
<td>120</td>
</tr>
</tbody>
</table>

The participants were randomly chosen for the study from Akal Model School Baru Sahib and Bongli Ketchi in Sirmaur district. Table 1 represents the sample which includes 120 students from secondary school stratified under gender basis (60 Females and 60 Males from two schools into further division as 30 Male and 30 female from: Akal Model School and 30 Male and 30 Female from Bongli Ketchi) to fulfill the objective of selecting 120 students in the research study.

3.2 Sampling Criteria
3.2.1 Inclusion criteria:
- Students between the age group of 11 to 14 were included.
- The SC, OBS and General category students were included.
- Both male and female students are included.
- Students who either understand English or Hindi language were included.
- Students of employment and unemployment families were included.

3.2.2 Exclusion criteria:
- Students who were having serious physical and mental illness like injury, accidents etc.
- Students who were not willing to cooperate.
• Students who did not understand English or Hindi language.

3.3 Tools Used
For measuring stress, anxiety and depression standardized tool by Lovibond S. H & Lovibond P. F created the Depression Anxiety Stress Scale (DASS-21) in 1995 was used in the study. It was applied to assess secondary school pupils' levels of stress, anxiety, and depression. There are 21 elements total, which are further broken down into three categories like stress, anxiety, and depression. Seven self-report items for each of the three dimensions are used to evaluate an individual's negative emotional states.

3.4 Statistical Technique Used
The following statistical approaches were used in the data analysis.
• Descriptive analysis (Mean and Standard Deviation in Graphical Representation)
• Inferential analysis (‘t’ test)

4. Data Analysis & Interpretation
Table: 1. Calculated Descriptive Value of Stress with Inferential statistical on Gender basis (Male & Female secondary school students) is shown in table.

<table>
<thead>
<tr>
<th>DASS-21</th>
<th>Gender</th>
<th>No.</th>
<th>Mean</th>
<th>S.D</th>
<th>t-test</th>
<th>L.O.S</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRESS</td>
<td>Male</td>
<td>60</td>
<td>15.10</td>
<td>6.519</td>
<td>.158</td>
<td>NS at 0.05</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>60</td>
<td>14.90</td>
<td>7.313</td>
<td>.158</td>
<td></td>
</tr>
</tbody>
</table>

According to Table 1, the presented study is consisted of total 120 students (60 male, 60 female). As a result, we accept the study's null hypothesis, which states that there is no significant difference in stress levels between male and female students. As the observations of Mean and SD in the study of Male and Female are 15.10 with SD 6.519 and 14.90 with 7.313 respectively. Male students showed slighter higher stress level than female. The t-test shows that there is not a statistically significant difference in stress levels between groups, independent of the assumption of equal variances (p = 0.158).

Table: 2 Calculated Descriptive Value of anxiety with Inferential Statistics on Gender basis (Male & Female secondary school students) is shown in the table:

<table>
<thead>
<tr>
<th>DASS-21</th>
<th>Gender</th>
<th>No.</th>
<th>Mean</th>
<th>S.D</th>
<th>t-test</th>
<th>L.O.S</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANXIETY</td>
<td>Male</td>
<td>60</td>
<td>14.30</td>
<td>5.127</td>
<td>-.347</td>
<td>NS at 0.05</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>60</td>
<td>14.70</td>
<td>7.298</td>
<td>-.347</td>
<td></td>
</tr>
</tbody>
</table>

It may be observed from Table 2. that present study is comprised of total 120 students (60 male, 60 female). The mean score on anxiety of male is 14.30 with S.D 5.127 and mean score on stress of female is 14.70 with S.D 7.298. The t-value of -.347 between male and female students on stress reveals that there is no statistically significant difference in stress levels between both genders. No significant gender difference in students' anxiety levels was found; hence the study's null hypothesis can be accepted.

Table: 3 Calculated Descriptive Value of Depression with Inferential statistical on Gender basis (Male & Female secondary school students) is shown in table.

<table>
<thead>
<tr>
<th>DASS-21</th>
<th>Gender</th>
<th>No.</th>
<th>Mean</th>
<th>S.D</th>
<th>t-test</th>
<th>L.O.S</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>60</td>
<td>12.07</td>
<td>5.994</td>
<td>.052</td>
<td>NS at 0.05</td>
</tr>
</tbody>
</table>


As a result, the hypothesis that there is no substantial difference between the levels of depression experienced by male and female students based on gender is confirmed by the findings of the current study. Levene's test indicates that the assumption of equal variances is violated (p = 0.023). The t-test shows that there is no statistically noteworthy distinction in depression levels between categories, regardless of whether equal variances are assumed or not (p = 0.052). Overall, the data indicate that there are no significant variations in stress, anxiety, or depression levels between the groups under comparison.

Fig 2. The Overall Mean Score of Stress, Anxiety and Depression on Gender basis (Male & Female) is shown in pie chart.

5. Findings
- There is no significant difference on stress, anxiety and depression among students on gender base.
- It was found that there exists no significant difference among male students.
- No significant difference was found on stress, anxiety and depression among female students.
- We can conclude that due to there are different levels of stress, anxiety, and sadness among secondary school pupils, according to numerous studies that have looked at their mental health. These factors may be influenced by elements including academic pressures, interpersonal interactions, family dynamics, and personal circumstances. However, there may be variances in these research’ findings according on the regions, cultures, and socioeconomic statuses studied.

6. Suggestions
- **Healthful Lifestyle Practices:**
  Regular physical activity has been shown in numerous studies to have positive impacts on mental health. Exercise has been demonstrated to alleviate symptoms of anxiety and depression and enhance general well-being (Craft & Perna, 2004; Mammen & Faulkner, 2013).
An optimal diet, characterised by a scarcity of processed foods and an abundance of fruits, vegetables, and whole cereals, may potentially offer safeguards against the development of depression and anxiety, according to scientific research. (Jacka et al., 2017; Lassale et al., 2018).

Sufficient rest: Sleep is essential for mental well-being. Low sleep quality and insomnia are associated with heightened risk of stress, anxiety, and depression (Baglioni et al., 2011; Alvaro et al., 2013).

- **Techniques for managing stress:**
  
  Mindfulness-based therapies, like mindfulness meditation and progressive muscle relaxation, are effective in decreasing stress and anxiety levels (Hofmann et al., 2010; Goyal et al., 2014).
  
  Cognitive-Behavioral Therapy (CBT) is a successful method for dealing with stress, anxiety, and depression. It works by recognising and questioning harmful thought patterns and behaviours (Hofmann et al., 2012; Cuijpers et al., 2016).

- **Support from others and feeling connected:**
  
  Relationships with other people: Having strong social support networks has been linked to enhanced psychological results and reduced degrees of stress, anxiety, and depression (Holt-Lunstad et al., 2010; Santini et al., 2015).
  
  Participation in Community Events: Getting involved in events in your community and making new friends can give you an overwhelming feeling of recognition and meaning, which can help you deal with stress (Kawachi & Berkman, 2001; Haslam et al., 2008).
  
  To balance job, home, and pupils, teachers should learn to successfully regulate their emotions and cultivate a positive outlook on life.
  
  Students can rely on their families for assistance and use their emotions to minimise stress.

  Schools must pay attention to kids' learning stress and offer them the necessary support through counselling.

### 7. Conclusions

Putting it all up, the best ways to reduce stress, anxiety, and sadness involve a variety of approaches, such as making changes to your lifestyle, learning how to deal with stress, getting social support, and therapy. A lot can be done to improve mental health and lessen the impact of mental illness on society by using methods that have been shown to work at the individual, social connection, and legislative levels.

### 8. References


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