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### RESEARCH ARTICLE

#### LEVEL OF STRESS LEVELS AMONG THE SCHOOL GOING STUDENTS AND COPING MECHANISMS: A CASE STUDY AT SELECTED SIX DIFFERENT SCHOOLS

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#### Abstract

Stress is the state of worry or mental situation caused due to the situations that everyone faces in everyday life, sometimes it seems to be minor, however, shows an unidentified impact. The present generation is witnessing the stress as a part of life and unavoidable. The main objective of this study was to study and understand the stress levels of the current generation students, particularly, school going students, as they will become the roots of the future. This study was also aimed at studying the relationship between stress and coping strategies adopted by the students and propose appropriate stress coping mechanisms, with respect to the schools visited. The results suggest that there is a need for the schools to operate hybrid-counseling centers for the students apart from their parents support to provide necessary support in effectively handling the stressful conditions. The results further suggest that the teachers employ information and communication technology (ICT) tools to instill conceptual learning, ultimately aiming to minimize stress in the academics. Furthermore, it is also suggested that the schools should encourage the students and make it mandatory to implement yoga techniques, which would instill self-controlling techniques, discipline and help in combating the stressful conditions.

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#### Introduction:-

Stress is defined as a non-specific response of the body to provocation by both internal and external features (Selye, 1956). The other way, stress is a complex process rises in the body associated with both psychological and behavioral responses (Senanayake and Arambepola, 2019). As already cited that the stress is a complex process, the manner in which students meet stressful occasions depends pointedly on how the students identify and react to the circumstances. Hence, owing to the complex nature, there is no single definition for stress (Monteiro et al., 2014). Individuals measure the stress based on one's own practices, insights, and other influences (Nasarudin et al., 2023). On the grounds of intensity and duration, stress maybe perhaps categorized as chronic or acute.

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Chronic stress is basically measured by making use of questionnaires, wherein a condition of threat that lasts for a month or longer which may lead to pain and disturbances is tagged as chronic stress (Nitsch et al., 2021). Whereas, a condition of threat that lasts for short duration with high intensity is tagged as acute stress (Luo et al., 2020).

Stress may sometimes lead to the rapid secretion of adrenocorticotrophic hormone (ATH) in the face of danger. The physiological response generated in the body aids in augmenting the quality of rebellious strength to handle with crises, thereby resulting in increased compliance and survivability (Luo et al., 2013). The other way, stress may lead to damaging of the individuals' mental and physical health, wherein excessive stress leads to a multiple physical diseases and mental disorders (Hermans et al., 2014). From the bud stage, school platform has been found to be a main cradle of stress, apart from regular social stressors, such as arguments at home, hitches with peers, etc. (Anniko et al., 2019). Increasing levels of stress among secondary school students is ever growing concern, which throws a light on investigating its relations with students' perceptions in classroom ambience that can offer valuable scientific information in dealing with the solutions to stress conditions. It is reported that school stress has considerably increased over time in most of the countries (L'ofstedt et al., 2020), with upsurge in the pressure in school education, chiefly in developed countries (Cosma et al., 2020; Cosma et al., 2023).

In line with the adverse impact of high stress levels of youth on mental health, a study conducted by Wuthrich et al. (2020) on academic stress reported that one in every six students encountered an excess amount of distress in their concluding two years of secondary school. Lazarus and Folkman (1984) developed a transactional model of stress and coping, which states that stress levels are influenced by an individual's approach to the context prevailing and the resources available for efficient coping. This perhaps, lays down a strong pavement on the students' perceptions of general classroom climate, considering it as a main aspect to develop a profound understanding of school stress. A study conducted by Vogel and Schwabe (2016) reported that the outcomes of the stress were found to be complex, with stress showing both augmenting and weakening effects on memory, depending on several parameters. Many factors, such as prerequisite to complete examinations and assessments, and meeting targets leads to massive stress, which eventually shows a detrimental impression on the learning and the memory process, that are the main attributes of the educational system (Joels et al., 2006; Schwabe et al., 2012).

In a study conducted to assess the moderating role of psychological capital in the relationship between school-related stress, the results obtained from the structural equation modeling analysis indicated that school-related stress showed a remarkable negativity in terms of academic achievement, implying a drop in academic achievement with higher school stress (Muluneh and Bejji, 2024). On the other side, school discipline, effective management and administration guarantees the adeptness and quality of school premises (Mazzeo, 2003). In a study conducted by Parveen et al. (2024), a better school management has perhaps proved that it is responsible and accountable to provide quality education and improve the student's performance.

In line with the contemporary and ever growing concern of stress levels among the students, most likely, this is an archetype study conducted within the vicinity of the study area and academic institutions, mainly planned to study and understand the stress levels among selected school going students and propose stress coping mechanisms with contemporary approaches. Therefore, the present study was aimed to investigate and understand the feeling and stress levels of the current generation students, more precisely, among the selected school-going students, as they are the buds who will become the roots of the future. In addition, this study addressed studying the relationship between stresses and coping strategies adopted by the students. Also, the results obtained in this study were analyzed to propose stress coping mechanisms more predominantly in line with the schools visited. A questionnaire was devised comprising of questions covering both the general and technical information to understand the state of mind of the students.

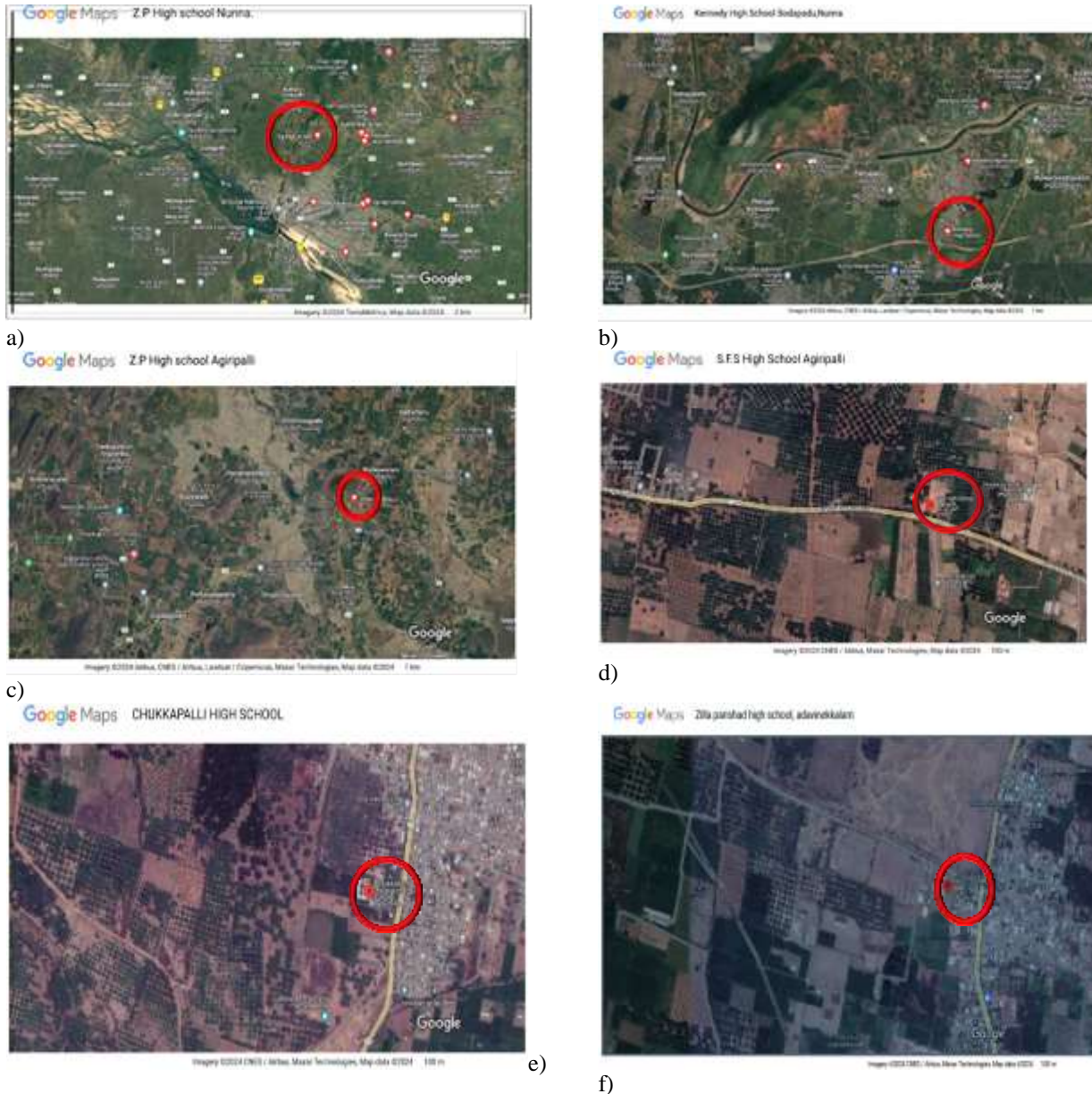
## **Materials and Methodology:-**

### **Study area**

A set of six different schools were selected to carry out the study, located in Nunna and Agiripalli villages, Krishna District, Andhra Pradesh State, India. Figure 1 shows the satellite images of the six different schools in the selected study highlighted in red circle.

### Methodology:-

This study was aimed at conducting a survey among the school going students who are ambassadors of the future. The survey was carried out using a questionnaire comprising of questions covering both the general and technical information sufficient to understand the insights of stress levels faced by students covering six schools. The data collected was uploaded to the Google form for data analysis. Survey was conducted nearly on 80 students from six schools belonging to eighth and ninth class standards and; initially a trail was made to make the students understand about the topic with the aid of a poster.



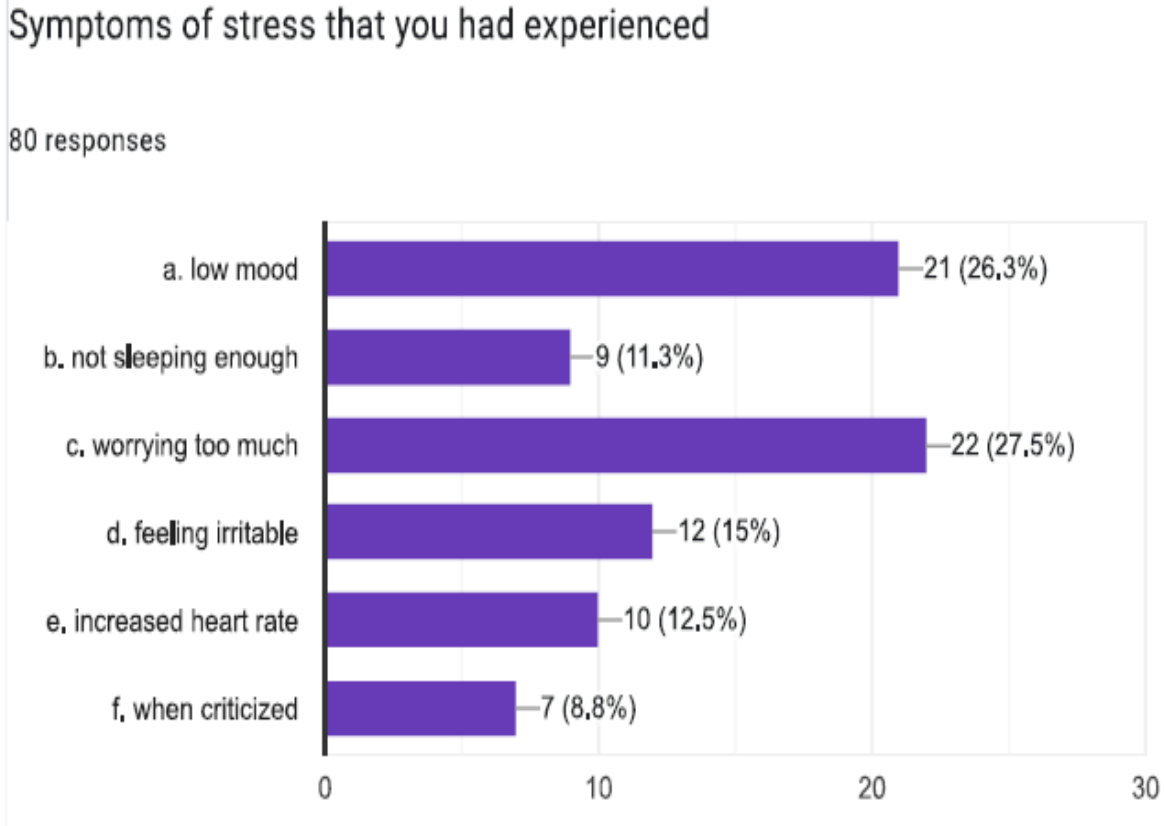
**Figure 1:-** Satellite images of the study area, a) Z.P High school, Agripalli, b) Z.P High school, Nunna, c) Kennedy (E.M) High School, Bodapadu, Nunna, d) S.F.S.High school, Agripalli, e) Chukkapalli High School, Nekklam Gollagudem and f) Z.P High school, Adavinekkalam.

### Results and Discussion:-

This study was aimed at conducting a survey among the school going students to investigate and understand the feeling and stress levels more precisely, among six selected schools, as they are the ambassadors of the future. In addition, this study was aimed at studying the relationship between stresses and coping strategies adopted by the

students, and propose stress coping mechanisms largely with respect to the schools visited. Against a question asked whether the students have experienced any symptoms of stress, majority of the students (27.5%) cited worrying too much as symptom of stress, whereas 26.3% of students cited low mood as a symptom of stress. The remaining students have cited many other factors as symptom of stress. The results paved a way to perform research on what are the ways out to handle the stress. Figure 2 shows the result of symptoms of stress experienced by students.

Figure 3 shows the results of extent of the students feeling of stress that show impact upon their daily life. More than 28.7% of the students replied that they have no idea on the feeling of the stress being faced, whereas 28.7% students replied that somehow they are feeling the stress in their daily life. Whereas, nearly 26.3% students replied that they doesn't see any impact. These results indicate that there is a need to make the students understand on how to fight back the impact of the stress being faced.



**Figure 2:-** The result of symptoms of stress experienced by students.

The results from Figs. 2 and 3 suggest that there is a necessity for student-counseling centers to be started in schools itself as they play a key role in motivating the students and, provide the students with a wide support in dealing with these difficulties, which is in agreement with results reported by Buchanan (2012) and, Robert and Taylor (2014). According to a study by Kraft (2009), many educational institutions have already established counseling services globally to provide support to students and reaped the fruits out of the endeavors planned.

How much your feeling of stress impacts upon your daily life?

80 responses

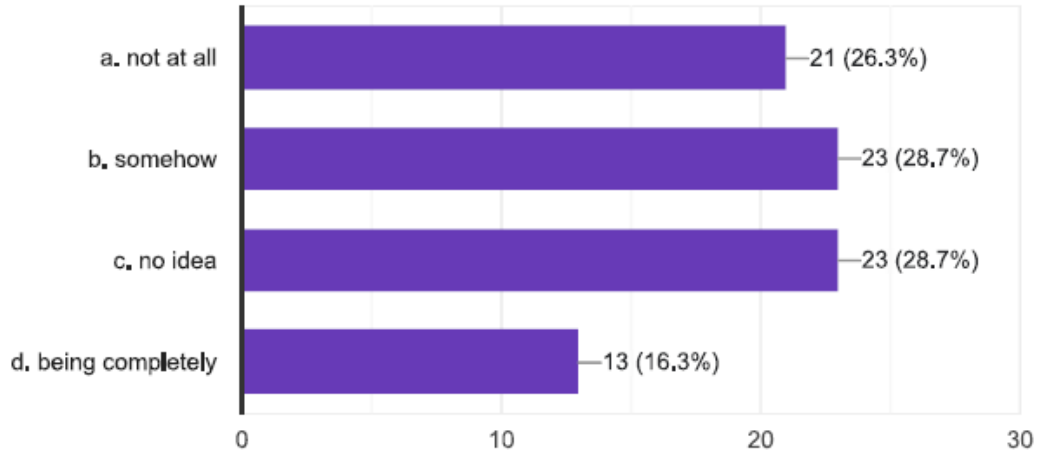


Figure 3:- The result of the extent of the students feeling of stress that show impact upon their daily life.

For a question asked on how do you manage your feelings of being stressed, 27.5%, 23.8% and 16.3% of students replied that they listen to music, spend time with family and/or friends and practice meditation, respectively. Nearly 10% of students replied that they don't have any idea on this. This indicates that the students have knowledge on managing the feelings of being stressed. Figure 4 shows the result of the question asked on how the students manage their feelings of being stressed. Since the last decade, online counseling system has attained importance and gained the phase by enhancing the prospect to offer innumerable online student support systems through a determined and productive online interactive communication platform (Hooley et al., 2016). In a study, Wong et al. (2018) revealed that majority of the students are showing interest in making use of online counseling for their academics, attitudinal and behavioral desires. It was reported in the literature that social media plays a vital role in providing online counseling and can assist students get psychosocial support in schools (Tannous, 2017; Awabil and Akosah, 2018).

How do you manage your feelings of being stressed?

80 responses

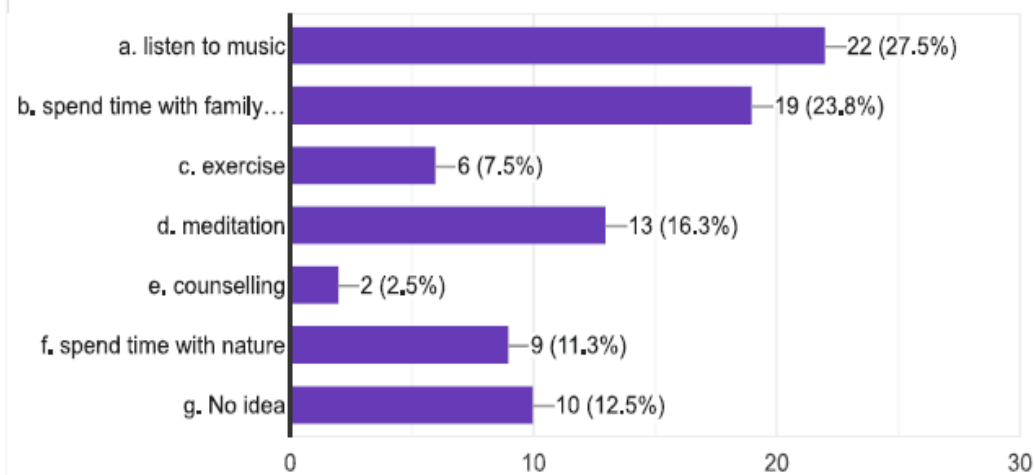
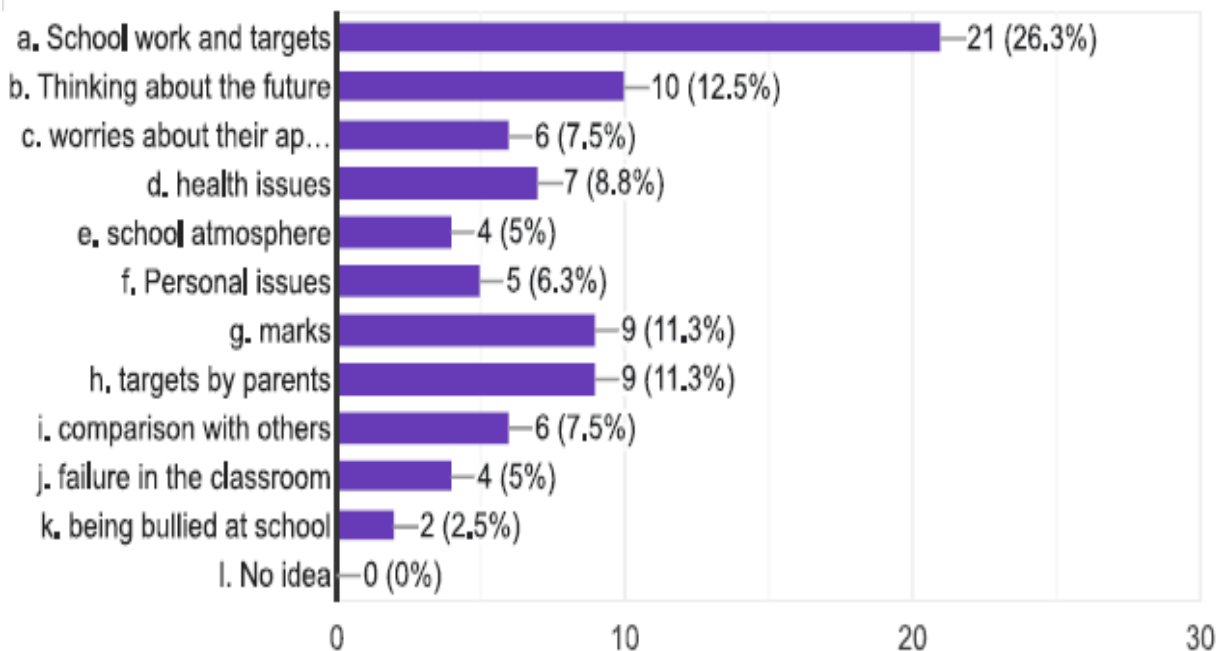


Figure 4:- The result of the question asked on how the students manage their feelings of being stressed.

For a question asked on what had caused the students stressed, 26.3% of the students replied that they are stressed due to schoolwork and targets, whereas 12.5% of students replied that they are facing stress because of fear of their future. Nearly 22.6% of the students replied that they are facing stress because of marks and targets by parents. The remaining students have cited several other reasons for being stressed. The results obtained in this study are in agreement with the results reported by Joels et al. (2006) and Schwabe et al. (2012) stating that many factors, such as prerequisite to complete examinations, assessments, and meeting targets leads to massive stress among the students, which eventually shows a detrimental impression on the learning and the memory process. This indicates that the students need support in terms of telling them inspirational stories of great personalities and need regular counseling to pave a path for relaxation. Figure 5 shows the result of the question asked on what had caused the students stressed.

## What had caused you stress?

80 responses

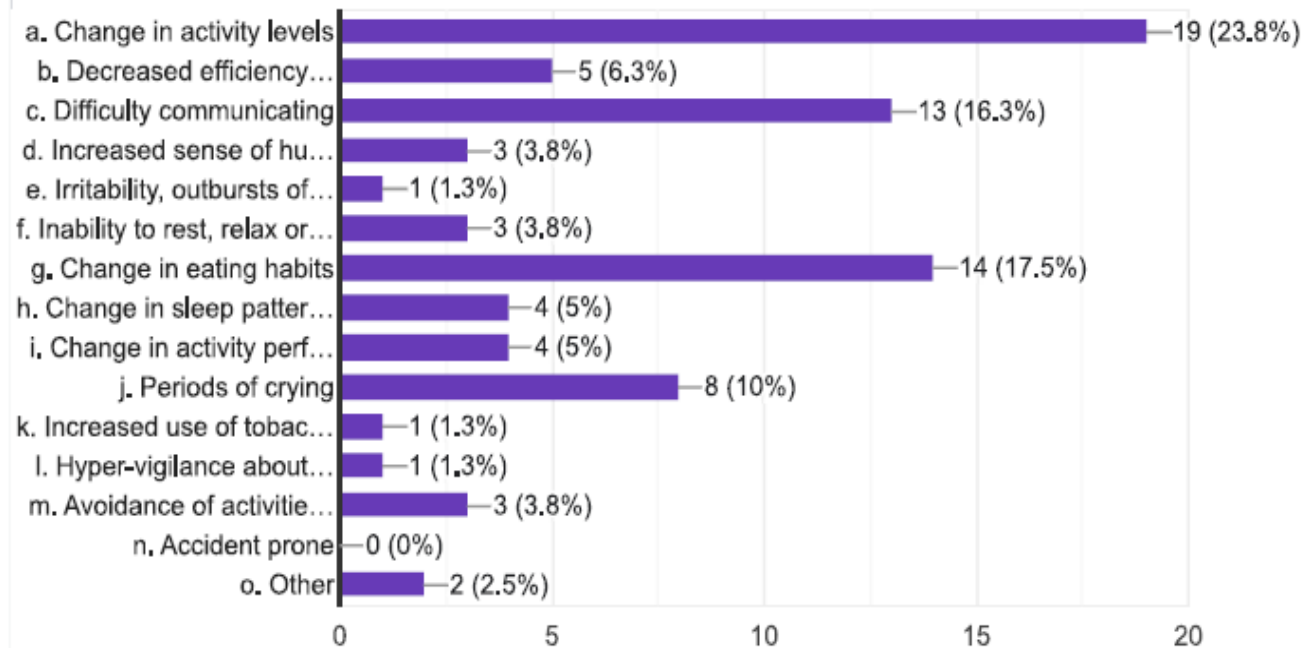


**Figure 5:-** The result of the question asked on what had caused the students stressed.

For a question asked on what are the usual behavioral effects of stress the students have noticed in the recent past, 23.8% of the students replied that they have observed change in their activity levels, whereas 17.5% of students replied that they have observed change in eating habits. Nearly 16.3% of the students replied that they are facing difficulty in communicating, whereas the remaining students have cited several other reasons for behavioral effects they have noticed in the recent past. A study conducted by Vogel and Schwabe (2016) reported that the effects of stress were found to be complex in nature, leading to show impact on the memory, varying with various parameters. It can be inferred that the students need support from their parents and teachers, and need regular counseling to cope up with the behavioral changes. Figure 6 shows the result of the question asked on what are the usual behavioral effects of stress the students have noticed.

## What are the usual behavioral effects of stress you've noticed at yourself?

80 responses



**Figure 6:-** The result of the question asked on what are the usual behavioral effects of stress the students have noticed.

For a question asked on what are the physical effects of stress the students have noticed in the recent past, 17.5 % and 16.3 % of the students replied that they have observed headache and sweating or chills, respectively. Whereas 15 % and 13.8 % of the students replied that, they have observed increased heart rate and lower back pain, respectively. The remaining students have cited several other effects they have noticed. Zimmer-Gembeck and Skinner (2008) in their study reported that students have faced some abnormalities that include depression and anxiety, as well as uttering behaviors, such as hostility and rebellious acts. It further highlighted the necessity of the support that the students need from their parents and teachers, provided the teachers minimize stressful activities in the schools. Also, the students need regular counseling to cope up with the behavioral changes in line with the results shown in Fig 6. Figure 7 shows the result of the question asked on what are the physical effects of stress the students have noticed.

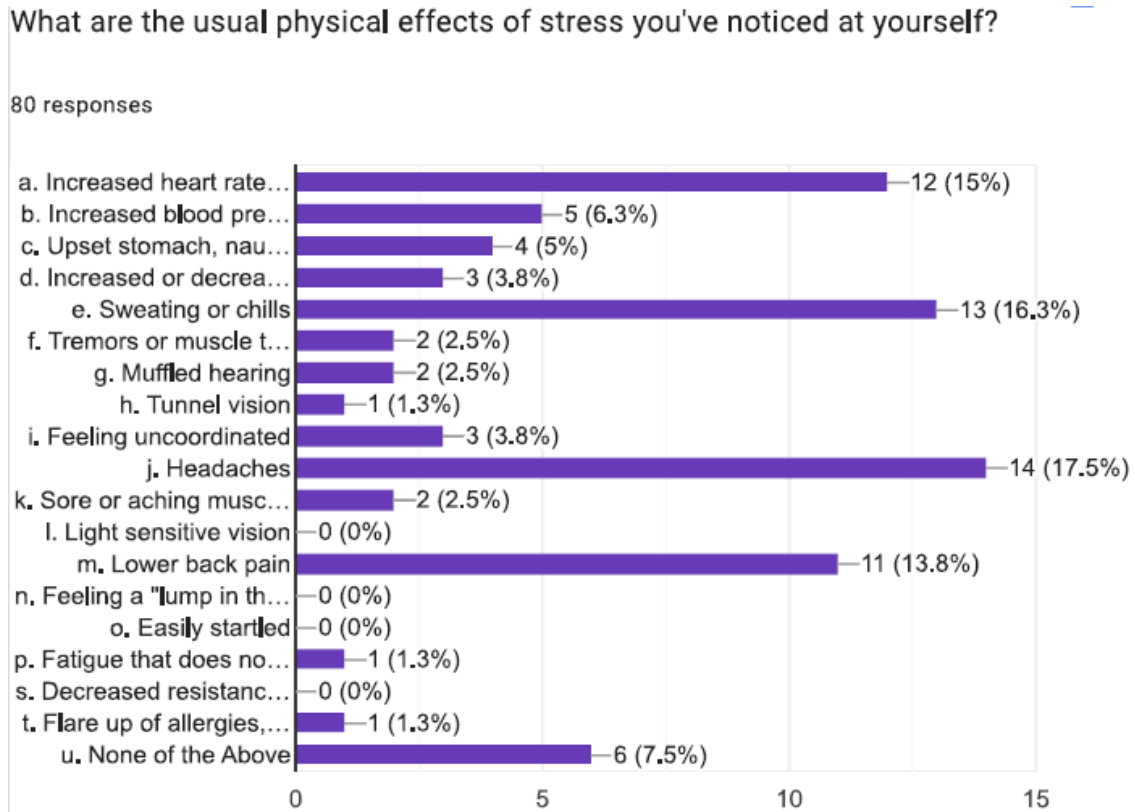


Figure 7:- The result of the question asked on what are the physical effects of stress the students have noticed.

Figure 8 shows the result of the question asked on whether the students find it difficult to pay attention in classes. Nearly 51.2 % students replied that they find it difficult to pay attention in classes, whereas the remaining students replied that they don't find any difficulty to pay attention in the classes, which indicates that the students can be exposed with several focusing techniques and can be motivated to listen to the classes with more focus in the near future. Also, the teachers can adopt new teaching models, such as information and communication technology (ICT) tools, inquiry based learning, project based learning and community based learning, which would lead to the students understand the value of life and can reduce the stress enormously.

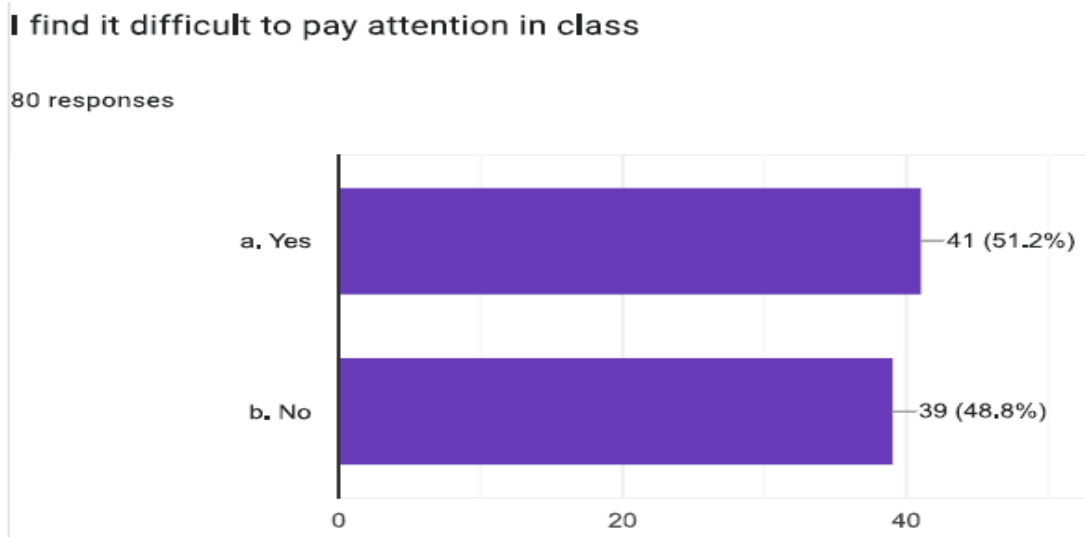


Figure 8:- The result of the question asked on whether the students find it difficult to pay attention in classes.



For a question asked on whether the students are able to understand what their teachers teach, 55.5 % of the students replied that they are not able to understand what their teachers teach, whereas 41.3 % of the students replied that they are able to understand what their teachers teach. The remaining students have cited several other replies. It can be inferred that the students need support from their teachers, and need regular counseling by their teachers to motivate them for positive results. Also, in line with the results shown in Fig. 8, the teachers can adopt new teaching models, such as ICT tools, which can reduce the stress on a large scale. Figure 9 shows the result of the question asked on whether the students are able to understand what their teachers teach.

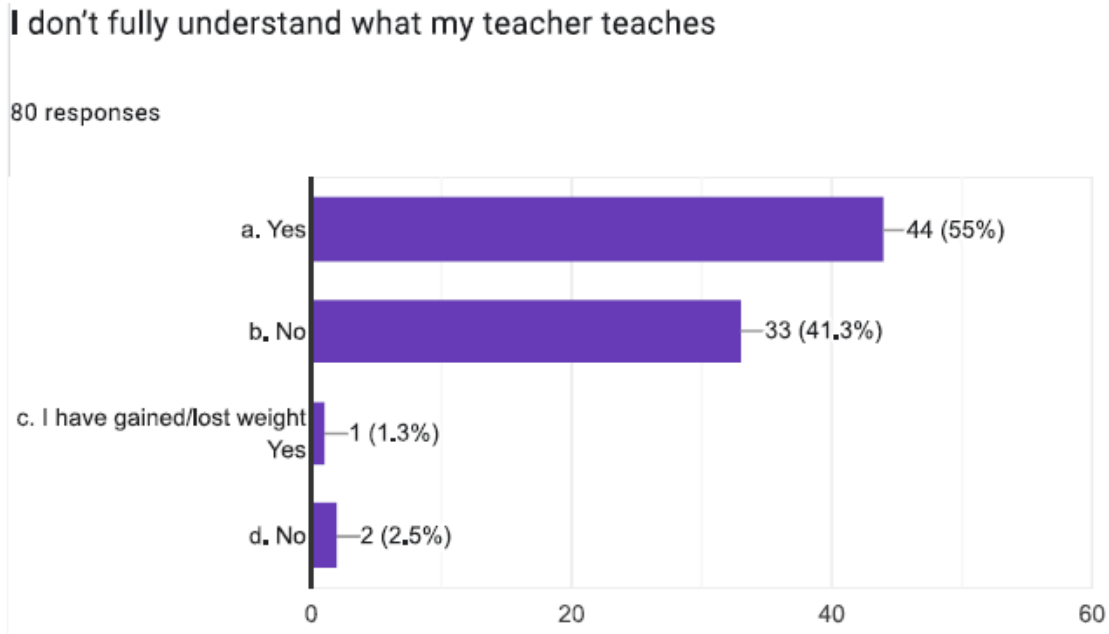


Figure 9:- The result of the question asked on whether the students are able to understand what their teachers teach.

Figure 10 shows the result of a question asked on whether the students are feeling good in doing things as they were in the past due to stress. It is apparent from Fig.10 that 50 % of the students replied that they are not feeling like in doing things as they were in the past due to stress. Whereas, the remaining 50 % students replied that, they don't find any difference, which indicates that the students need regular motivational speeches so that students can identify the hidden talent in them and tap in to shape their future. And also, the students need support from their parents and teachers, and need regular counseling to cope up with the behavioral changes in line with findings presented in Fig. 6.

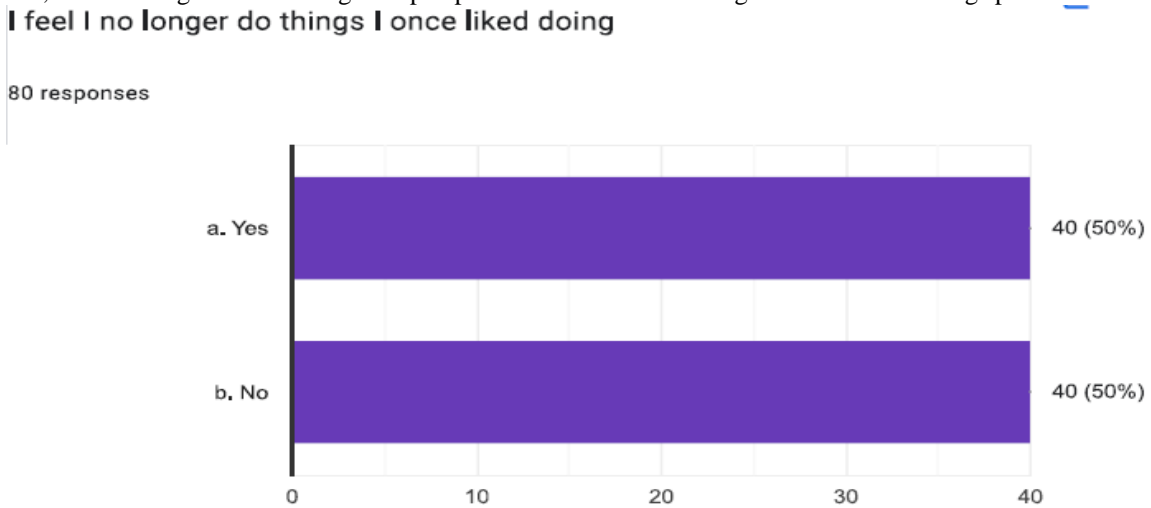
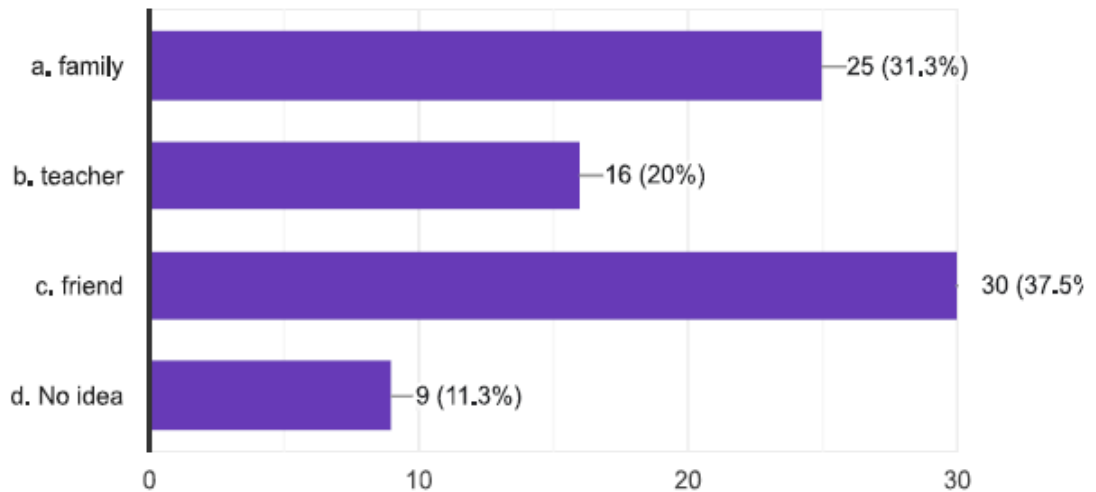


Figure 10:- The result of the question asked on whether they are feeling good in doing things as they were in the past due to stress.

For a question asked on who would the students approach if they need support in the context of stress or wellbeing issues, 37.5 % of the students replied that they approach friends, whereas 31.3 % of the students replied that they approach their family, 20 % of the students replied that they approach their teachers and remaining have no idea. The results indicate that the students need moral support and motivation from all their well-wishers when they are in need of support. Figure 11 shows the result of the question asked on who would the students approach if they need support in the context of stress or wellbeing issues. It is a known fact that students spend active hours in schools or colleges, hence, it is evitable that teachers reduce any stress associated tasks in the classroom to the possible extent, which would pave a better understanding of the students, eventually resulting in enhancing the academic performance and positive thinking, which is also in agreement with findings reported by Valiente et al. (2012).

### Who would you approach if you needed emergency support for stress or wellbeing related issues?

80 responses



**Figure 11:-** The result of the question asked on who would the students approach if they need support in the context of stress or wellbeing issues.

Figure 12 shows the result of the question asked on which services the students avail to manage their feelings of stress. It is apparent from Fig.12 that 43.8 % of the students replied that they practice meditation, whereas 28.7 % of the students replied that they don't have any idea. Nearly 17.5% of the students replied that they avail the counseling facility and 10 % of the students replied that they consult doctor and medication to manage their stress, which indicates that there is a need for regular counseling to cope up with the behavioral changes in line with findings presented in Figs. 6 and 10.

Figure 13 shows the result of the question asked on how the students perceive the relationships with their school friends during the time of stress. It is apparent from Fig. 13 that 32.5 % of the students replied that they share their feeling with their friends, 27.5 % of the students replied that they simply smile at them, whereas 22.5 % of the students replied that they show anger on them and 11.3 % of the students replied that they shout at their friends. It can be inferred that the students need to be made aware of yoga and its benefits to handle the stress and need regular counseling to cope up with the behavioral changes during the time of stress.

Which services you have used to manage your feelings of stress?

80 responses

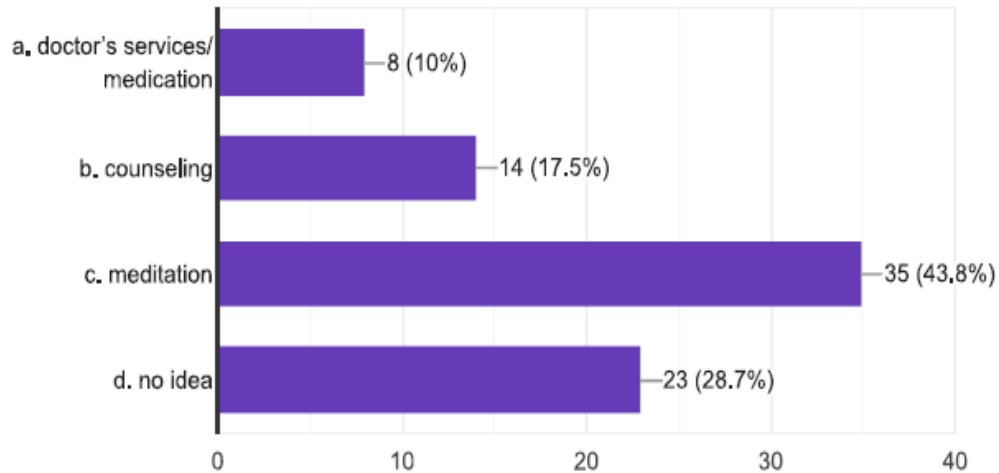


Figure 12:- The result of the question asked on which services the students avail to manage their feelings of stress

Moreover, few basic needs of the students need to be met by providing students with a safe learning ambience and positive relationships and, the teachers can assist students to manage the stressful moments that inevitably come in the schools, which is in agreement with the reported literature (Rachahoon et al., 2011; Vangpoomyai et al., 2012; Rattanawongsa et al., 2013; Bunterm et al., 2014). In a study conducted by Juhász et al. (2024) to evaluate the effectiveness of school-based programs pointing to the stress management and coping mechanism among school going children, it was reported that researchers or mental health professionals play a crucial role in effective stress management interventions than by regular teachers.

How do you perceive the relationships with your school colleagues during the period of stress?

80 responses

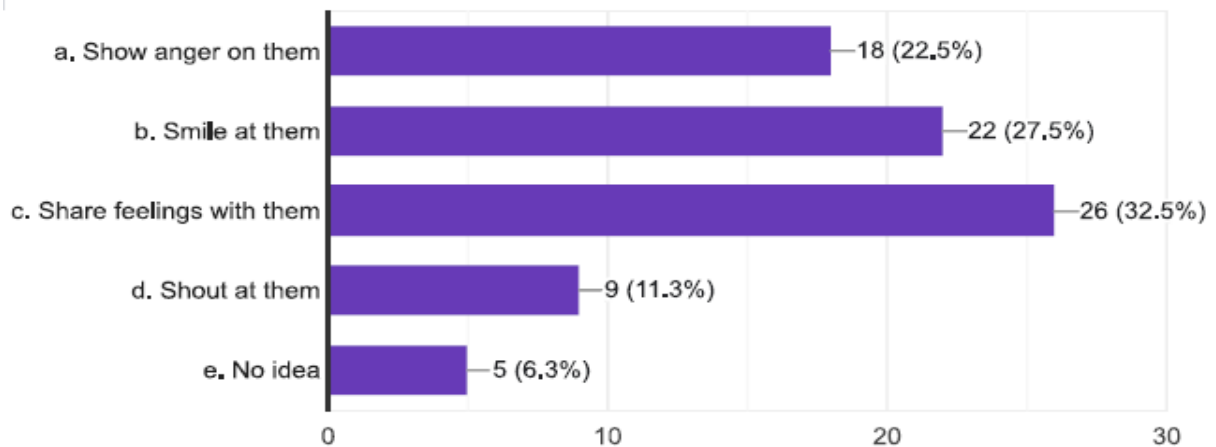


Figure 13:- The result of the question asked on how the students perceive the relationships with their school friends during the time of stress.

For a question asked on how the students react if someone annoys, 55 % of the students replied that they would bottle up their feelings, whereas 45 % of the students replied that they remain calm during that context. The results indicate that the students need to practice yoga techniques to better understand their feelings and handle the stress and need regular counseling to cope up with the behavioral changes during the time of stress in line with the results shown in Fig. 13. Figure 14 shows the result of the question asked on how would the students reacts if someone annoys those.

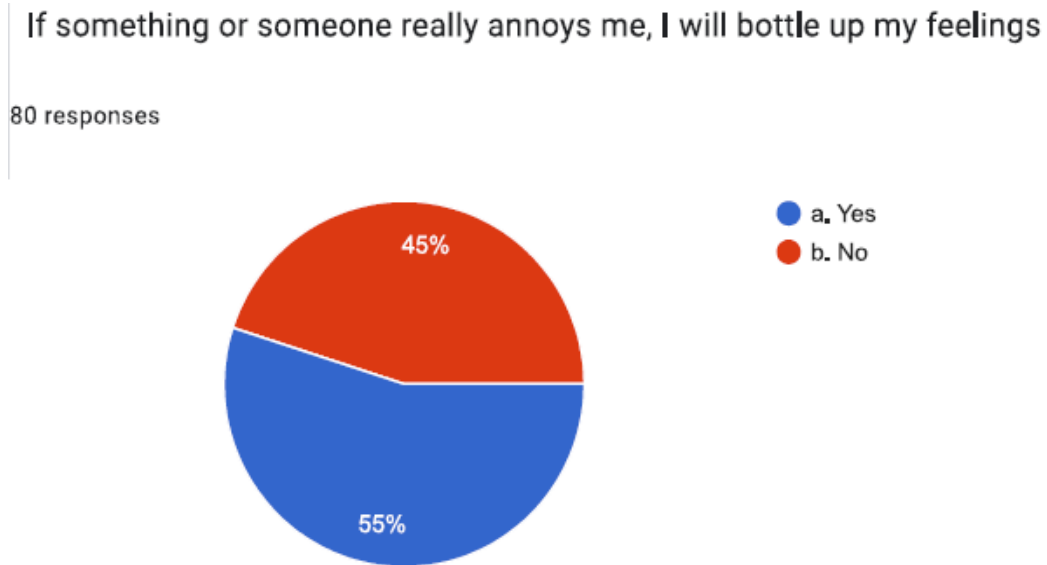


Figure 14:- The result of the question asked on how would the students reacts if someone annoys those.

For a question asked on how would the students feel during the time of stress in terms of mood swings, difficulty making decisions, concentration and memory is impaired, 51.2 % of the students replied that they experience mood swings, difficulty making decisions, concentration and memory is impaired during the time of stress, whereas 48.2 % of the students replied that they don't observe any such. Figure 15 shows the result of the question asked on how the students would feel during the time of stress in terms of mood swings, difficulty making decisions, concentration and memory is impaired. The results indicate that the majority of the students need counseling and need to practice yoga to better handle such type of instances. As suggested by Sripongwiwat et al. (2018), an ambience should be created by the teachers wherein, stressful instances can be curved into prospects to institutethe students with self-composing skills.

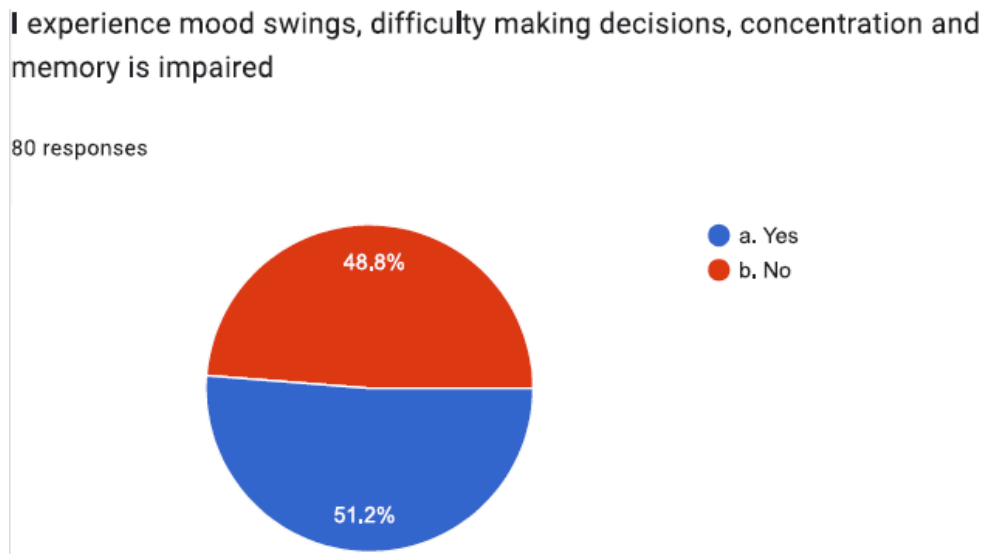
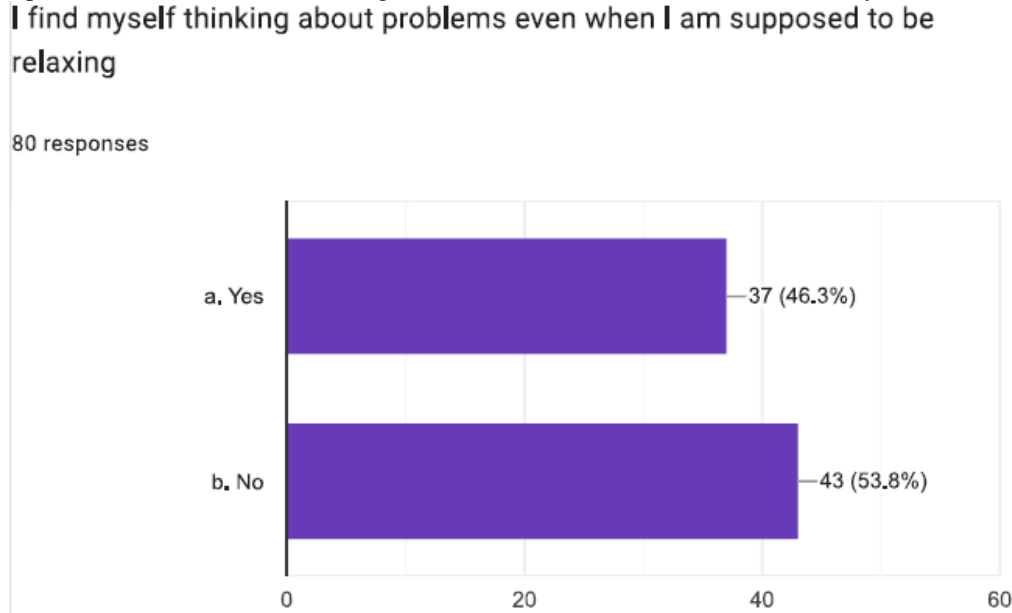


Figure 15:- The result of the question asked on how the students would feel during the time of stress in terms of mood swings, difficulty making decisions, concentration and memory is impaired.

For a question asked on how the students would find themselves thinking about problems even when they are supposed to be relaxing, 46.3% of the students replied that they find themselves thinking about problems even when they are supposed to be relaxing, whereas 53.8% of the students replied that they don't observe any such. Figure 16 shows the result of the question asked on how the students would find themselves thinking about problems even when they are supposed to be relaxing. The results indicate that the students need regular counseling by teachers apart from creating an environment wherein, students would be taught with moral and inspirational stories, which would eventually lead to understand the value of time and life (Sripongwiwat et al., 2018). Furthermore, as an extension to this study, it is proposed to develop a different approach on what the students are thinking about happiness index, which is imperative to know the mental and emotional health of a student, an idea drawn from Musikanski et al. (2017) in a study reported on happiness index methodology. Additionally, machine learning techniques can be employed to predict the stress levels in the long run based on the results obtained in this study.



**Figure 16:-** The result of the question asked on how the students would find themselves thinking about problems even when they are supposed to be relaxing.

### Conclusion:-

This study has indeed laid a strong platform to get exposed to multiple mindsets and supported in exploring the current mindset of the school going students on stress and coping mechanisms to better handle the same. In fact, this study paved a path to interact with various students and conduct various awareness programs for educating the students and schools management about stress and contemporary coping mechanisms, which eventually enhanced the value of life skills. The results suggest that the schools should make it mandatory to operate hybrid-counseling centers for students a part from their parents support to provide necessary support in effectively handling the stressful conditions and achieve their dream goals. The results further suggest that there is a need for the teachers to make use of ICT tools, project based and inquiry based learning to instill conceptual learning ultimately aiming to minimize the stress in the academics. Additionally, it is also suggested that the schools should encourage the students and make it mandatory to learn and implement yoga techniques, which would instill self-controlling techniques, discipline and help in combating the stressful conditions. Furthermore, as an extension to this study, it is proposed to make use of happiness index and machine learning techniques, which is imperative to know the mental and emotional health of a student that would lead to explore and decipher into new stress coping strategies.

### Acknowledgments:-

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