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# PSYCHOSOMATIC SYMPTOMS AND HIGHER SECONDARY SCHOOL STUDENTS

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**ABSTRACT** This is a study on the assessment of psychosomatic symptoms experienced by Higher Secondary school students. Using Dr. Hemalatha Natesan's Case Study Schedule, data was collected regarding the predominant psychosomatic symptoms experienced by the higher secondary students at two higher secondary schools (one Government and one Private). This study revealed that an average of two to three psychosomatic symptoms were present among the sample. It was also observed that the average number of symptoms found among Government school students were only two whereas, it was three to four among the private school students. The most reported symptom was Confusion (42%), followed by Head Ache (38%). The least inferred symptom was Loss of Appetite (3%), followed by Chest Pain (7%).

**KEYWORDS :** Psychosomatic Symptoms, Predominant Symptom, Government School, Private School

## INTRODUCTION

It is an accepted fact that prior to the exams, higher secondary school students undergo a lot of stress, which generally results in physical ailments like stomach pain, head ache, irritability etc. The causes for these ailments are really not understood by the person and they resort to the normal medication; only to find that they are not getting cured. These ailments do not get cured as the root cause for it, i.e., the psychological aspect of it is not addressed.

Psychosomatic disorder, also called psychophysiological disorder, is a condition in which psychological stresses adversely affect physiological (somatic) functioning to the point of distress. It is a condition of dysfunction or structural damage in bodily organs through inappropriate activation of the involuntary nervous system and the glands of internal secretion. Thus, the psychosomatic symptom emerges as a physiological concomitant of an emotional state.

In a state of rage, for example, the angry person's blood pressure is likely to be elevated and his pulse and respiratory rate to be increased. When the anger passes, the heightened physiological process usually subsides. If the person has a persistent inhibited aggression (chronic rage), which he is unable to express overtly, the emotional state remains unchanged, though unexpressed in the overt behavior, and the physiological symptoms associated with the angry state persists. With time, such a person becomes aware of the physiological dysfunction. Very often, he develops concern over the resulting physical signs and symptoms, but he denies or is unaware of the emotions that have evoked the symptoms (*Encyclopedia Britannica, www.britannica.com*)

Sleep disturbance is a common symptom when one is under stress, whether it is stress at workplace or at school or even at home. So, it is a psychologically created one. If people do not realize that their headache, chest pain or any other kind of psychosomatic symptom is psychologically caused, they may not resort to psychological methods to come out of this problem.

Adolescence is a stressful period due to physical, psychological, sexual changes, and the presence of psychosomatic problems at this stage of life is a matter of concern (Casey et al., 2010). These symptoms can lead to poor academic performance, lack of communication with friends and family members, substance abuse, feeling of abandonment, homicidal ideation, and suicidal tendency (Polloc, Rosenbaum, Marrs and Biederman, 1995; Brooks, Harris, Thrall and Woods, 2002).

In total, psychosomatic disorders are defined as "A group of ailments in which emotional stress is a contributing factor to physical problems involving an organ system under involuntary control" (Marwaha, 2015).

## NEED AND SIGNIFICANCE OF THE STUDY

Due to psychological reasons, many symptoms of physical ailments may start showing in the body, which could affect the performance of an individual. Unless people realize this, they would go to general physicians and start taking medicines only to find that the symptoms only aggravate and do not disappear. Nowadays, the higher secondary school students are put at increased pressure throughout their course of study, to score good marks and enter into a professional course or any other college course. This ultimately affects them physically and psychologically and results in lot of psychosomatic symptoms, which goes unnoticed. Hence, an effort is made in this study to assess and compare the predominant psychosomatic symptoms experienced by the higher secondary school students studying in government and private schools.

Adolescence typically describes the years between ages 13 and 19 and can be considered the transitional stage from childhood to adulthood. However, the physical and psychological changes that occur in adolescence can start earlier, during the preteen or "tween" years (ages 9 through 12). Adolescence can be a time of both disorientation and discovery. This transitional period can bring up issues of independence and self-identity; many adolescents and their peers face tough choices regarding school, sexuality, drugs and alcohol, and social life. Peer groups, romantic interests, and appearance tend to naturally increase in perceived importance for some time during a teen's journey toward adulthood (www.psychologytoday.com/us/basics/adolescence). The psychological energy caught within them due to denial of expression, lead to many psychosomatic ailments. There are psychological techniques such as rationalization, sublimation, relaxation etc to overcome or ease out the situation.

## STATEMENT OF THE PROBLEM

A study on the intensity of psychosomatic symptoms among Higher Secondary school students of Government and Private Schools.

## OBJECTIVES

- To measure the predominant psychosomatic symptoms experienced by the selected higher secondary school students.
- To understand whether a student is experiencing only one symptom or multiple symptoms at a time.
- To find out whether there is any significant difference between Private and Government school students in their experience of psychosomatic symptoms.

## HYPOTHESES

- The selected higher secondary school students experience psychosomatic symptoms considerably.
- The selected higher secondary school students experience multiple psychosomatic symptoms at a time.
- There will be a significant difference between government and Private School students in their experience of psychosomatic

symptoms.

## METHOD AND PROCEDURE

### SAMPLE

Fifty one higher secondary school students from Bharathmatha Higher Secondary School, Palakkad (Private school) and fifty five students from Pandit Motilal Higher secondary School, Palakkad (Government school) were selected as the sample for the study using convenience sampling method.

### TOOLS USED

Case Study Schedule by Dr. Hemalatha Natesan was used. Case study schedule includes topics namely- Symptoms, Negative emotions, Health problems, Tension managing methods, causes of anxiety and the effects of anxiety. Though all these responses are important to the study, only the psychosomatic conditions were focused for this study.

The schedule includes 14 types of psychosomatic symptoms, namely, 1.Sleep disturbance, 2.Irritability, 3.Headache, 4.Giddiness, 5.Restlessness, 6. Chest pain, 7. Short temper, 8.General weakness, 9. Sweating, 10 Breathlessness, 11. Confusion, 12.Swelling of legs, 13.Loss of appetite and 14. Aches and pains.

### PROCEDURE FOR DATA ACQUISITION

Permission was obtained from the school authorities and the purpose of the study was briefed to the students. Only those students who came forward voluntarily were taken in to the fold of this study. A briefing was given to the selected sample regarding the case study schedule. After that, they were given Dr. Hemalatha Natesan's Case Study Schedule and were requested to respond to the items by ticking the predominantly experienced symptoms in the last few months. After the entry of their responses, the schedules were collected back for further statistical analysis.

### STATISTICAL TECHNIQUES USED

Mean, Standard deviation and F-ratio were the statistics used for this study

## REVIEW OF LITERATURE

There are too many studies available about psychosomatic disorders. Common people are not much aware about such symptoms and ailments. Hence quoting some findings of such studies may put light into the volume and predominance of the problem.

According to www.disabled-world.com, the internet magazine dt.6-4-15 revised (19-4-2015), 1)Tremor 2) Nausea 3) Sweating 4) Dry mouth 5) Headaches 6) Chest pains 7) Palpitations 8) Increased heart rate 9) "knot" in the stomach 10) Increased breathing rate are some of the symptoms which may develop when a person is anxious or afraid. The article continues that "the physical symptoms are due to increased activity of nervous impulses sent from the person's brain to different parts of the body as well as to the release of adrenaline into the person's blood stream, when the person is anxious".

Sathish Kumar and Brogen Singh Akoijam (2017) determined the prevalences of depression, anxiety, and stress among higher secondary school students of Imphal and determined the association between depression, anxiety, and stress and selected variables such as gender, standard, and religion. From September 2014 to October 2014, a cross-sectional study was conducted among 750 higher secondary school students of Imphal. The study tool used was DASS (Depression Anxiety Stress Scale) and sociodemographic characteristics. The prevalences of depression, anxiety, and stress among the valid respondents were 19.5%, 24.4%, and 21.1%, respectively. In total, 81.6% of the respondents had at least one of the studied disorders and 34.7% of the respondents had all the three negative states. The prevalences of depression, anxiety, and stress were high among females and were significant for anxiety ($P$ = 0.00) and stress ($P$ = 0.04). The prevalences of depression and stress were significantly higher among 12th standard students with P-values of 0.00 and 0.02. The prevalences of depression, anxiety, and stress were high with anxiety and stress significantly higher among females, whereas prevalences of depression and stress were significantly higher among 12th standard students.

Koic, Philakovic, Dordevic and Koic (2007) assessed the prevalence of psychosomatic disorders in the population of secondary school students in Osijek, and compared the groups of students with psychosomatic disorders and psychosomatic reactions with the group of healthy students according to their socioeconomic, family, relational and hereditary contextual factors. A total of 508 secondary school students from Osijek (170 male and 338 female) aged 15-19 years were included in the study. Study subjects were divided into three groups: (a) healthy students (n=272; 53.54%); (b) students with psychosomatic reactions (n=190; 37.40%); and (c) students with psychosomatic disorders (n=46; 9.06%). Accordingly, 37.40% and 9.06% of student sample suffered from psychosomatic reactions and psychosomatic disorders, respectively. The most common psychosomatic reactions were allergies (22.04%), dysmenorrhea (21.01%) and acne (16.00%). The most common psychosomatic disorders were asthma (4.33%) and hypertension (1.96%). Psychosomatic reactions occurred more often in female than in male students. The number of divorced parents was significantly higher in the group of students with psychosomatic disorders (52.20%) as compared with the group of healthy students (15.10%). The rate of psychosomatic disorders was significantly lower among parents of healthy students (28.70%) as compared with parents of students with psychosomatic reactions (47.90%) and those with psychosomatic disorders (67.40%). Study results pointed to a conclusion that hereditary factors (predisposition) and factors representing the source of intense fear in childhood and adolescence (e.g., parents. divorce) played a significant role in the onset of psychosomatic disorders.

In a study titled, school related stress and psychosomatic symptoms among Norwegian adolescents, results showed that 18.1 percent reported being very much affected by at least one of the assessed psychosomatic symptoms. Girls showed significantly more psychosomatic symptoms than did boys (Murberg and Bru, 2004).

Benaventel and Costa (2011), identified the physical stress manifestations among students, such as sweating, shaking, physical weakness; and psychological manifestations, such as panic, anguish, solitude, abandonment, sadness, demotivation, frustration, helplessness, and anger. It was verified that anguish was the most reported symptom among all the manifestations.

From all the above studies, it is evident that stress, anxiety and emotions can affect the body and put a person under physical ailments. These can be addressed only by incorporating psychological interventions such as counselling, relaxation techniques etc., along with regular medication.

## RESULTS

**Table I: Psychosomatic Symptoms Experienced by the Sample**

| Symptoms experienced | Total students reported | Percentage |
|---|---|---|
| Loss of appetite | 3 | 3 |
| Chest pain | 7 | 7 |
| Giddiness | 10 | 9 |
| General weakness | 14 | 13 |
| Swelling of legs | 14 | 13 |
| Aches and pains | 16 | 15 |
| Sleep Disturbance | 19 | 18 |
| Irritability | 21 | 20 |
| Breathlessness | 24 | 23 |
| Restlessness | 26 | 25 |
| Short temper | 26 | 25 |
| Sweating | 30 | 28 |
| Headache | 40 | 37 |
| Confusion | 44 | 42 |

From Table I, it can be summed up that all the 106 students reported 294 occurrences of experiencing various psychosomatic symptoms. Among them, confusion is the highest experienced symptom i.e., 42%. The hypothesis, "The selected higher secondary school students experience psychosomatic symptoms considerably" is therefore accepted.

The next is headache with 38% students experiencing the symptom. Sweating is the third highest (28%) experienced by the sample. The least experienced symptoms were Loss of appetite (3%) chest pain (7%) and giddiness (9%).

Running into problems while learning is often accompanied by an emotional response. Emotion, more broadly, plays a vital role in the integration of new knowledge with prior knowledge. A clear example

of how emotion can impact on the learning process is where it creates an obstacle to learning, reflected in, for example, the vast body of work that has examined the detrimental effect of anxiety on the learning of mathematics (Hembree, 1990). Similarly, confusion has been associated with blockages or impasses in the learning process (Kennedy and Lodge, 2016).

**Table II: Psychosomatic symptoms experienced by the Government and Private school students**

| Symptoms experienced | Govt. School (n=55) | Percentage | Private school (n=51) | Percentage |
|---|---|---|---|---|
| Sleep disturbance | 12 | 22 | 7 | 14 |
| Irritability | 7 | 13 | 14 | 27 |
| Head ache | 18 | 33 | 22 | 43 |
| Giddiness | 3 | 5 | 7 | 14 |
| Restlessness | 11 | 20 | 15 | 29 |
| Chest pain | 3 | 5 | 4 | 8 |
| Short temper | 5 | 10 | 21 | 41 |
| General weakness | 0 | 0 | 14 | 27 |
| Sweating | 9 | 16 | 21 | 41 |
| Breathlessness | 13 | 24 | 11 | 22 |
| Confusion | 10 | 18 | 34 | 67 |
| Swelling of legs | 12 | 22 | 2 | 4 |
| Loss of appetite | 0 | 0 | 3 | 6 |
| Aches and pain | 7 | 13 | 9 | 18 |
| TOTAL | 110 | | 184 | |

In Table II, the number and percentage of students in government and private schools experiencing each symptom is given. When the symptom 'Confusion' affected only 18% of the Government school students, it affected 67% of private school students. When General weakness and Loss of appetite affected none of the students of the Government school, it affected 27% and 6% of private school students respectively. Short temper and Irritability affected only 10% and 13% of the Govt. school students. The corresponding percentages for Private school students were 41% and 27% . Only in the cases of sleep disturbance, breathlessness and swelling of legs, the Government school students showed a higher percentage of occurrences. For sleep disturbance it was 22% for Government school students and 14% for private school students. For breathlessness, it was 24% and 22% respectively for Government School students and Private school students. Also in the case of swelling of legs it was 22% for Government school students and only 4 % for the Private school students.

**Table III: Mean Difference in Psychosomatic symptoms among Government and Private School students.**

| Group | Mean scores | Standard deviation | F Value |
|---|---|---|---|
| Government School | 2 | 5.07 | *2.9181 |
| Private School | 4 | 8.65 | |

***Significant at F critical value for .05 level is 2.576927**
***Significant at F critical value for 0.1 level is 2.080185**

In Table III, it is shown that the average number of psychosomatic symptoms experienced by the Government school students is 2, whereas it is 4 in the case of Private school students. So, it is obvious that in the case of psychosomatic symptoms, Government school students are less affected than Private school students. The standard deviation score for Government school is 5.07 and for Private school is 8.65. The F Value 2.9181 derived in this study is greater than the table value at .05 level. Hence it can be concluded that there is significant difference between Government school students and Private School students in experiencing psychosomatic symptoms. It is concluded that the type of school alone makes a significant difference in the experience of psychosomatic symptoms among the sample of this study. Hence, the hypothesis, "There will be a significant difference between Government and Private school students in their experience of psychosomatic symptoms" is accepted.

## ANALYSIS AND INTERPRETATION

From the above Tables it could be seen that confusion (42%) is the symptom that most number of students experience. The second highest symptom experienced by students is Head ache (38%). Third is sweating (28%). Fourth is Short temper (25%) and next Restlessness (25%) likewise. The least experienced symptom among the samples is Loss of Appetite (3%) followed by chest pain (7%) and Giddiness (9%).

Actually, this shows the volume of psychosomatic symptoms experienced by the students. The stress and emotional factors, as well as age based fidelity and conflicts instigate the students to respond impulsively. But particularly, in the stage of adolescence, students are neither permitted to express what they actually feel nor trained how to burn off the psychological stress and then to release the energy. This study points out the immediate need for psychological intervention in the matters of stress and emotional management of the plus one students.

In this research, when comparing private school students with Govt. school students, the presence of psychosomatic symptoms was greater among Private school students than Govt. school students. This points out the greater gravity of the psychosomatic problem at private schools than at Government schools.

## CONCLUSION

Hence, the study concludes that psychosomatic symptoms are present in a considerable volume among the selected higher secondary school students. Many of the students are experiencing multiple psychosomatic symptoms. The average number of symptoms experienced was 3. When Government school and private schools were compared, it can be concluded that there is a significant difference between the Government school students and Private school students in experiencing psychosomatic symptoms. The presence of psychosomatic symptom is greater with Private school students. This study also points out that the school administrations should start addressing this issue in psychological ways in order to save the students from falling into graver break downs.

## LIMITATIONS

Sample size is moderate. For the convenience of the research, the institutions selected were from the same town. These are some limitations of this study. Still the study had put some light in to psychosomatic problems of higher secondary students.

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