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Assessment of *Chittodwega* in BAMS 1st year students w.s.r to Anxiety by Hamilton Anxiety Rating Scale

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A B S T R A C T

Chittodvega is a term denoting the anxious state of mind. It is individualistic and occurs without knowledge of person. Exam anxiety can be considered as one kind of *Chittodvega* we are seeing in students. *Chittodvega* is having adverse effect over the mind as well as body and it also affects the quality of life*.* Therefore, study has been conducted to assess the level of *Chittodvega* with special reference to Exam anxiety in students.

Key words: *Chittodvega, Vatadosha, Exam anxiety*

INTRODUCTION

Ayurveda – an eternal science of healthy living treasures deals with physical, psychological and spiritual wellbeing of the human being and covers all the aspect of human life.[1] Human life is considered as the invaluable opportunity to achieve the prime goals of life i.e., *Dharma, Artha, Kaama* and *Moksha*. To achieve all these things, one needs a healthy and calm life.[2] On the other hand today everyone is trying to gain good education, financial status and to fulfill all the physical desires, today's metaphysical society is facing unsteady, weakened, hard and everyday changing lifestyle. As a gift of this lifestyle, almost everyone appears to be stressed and confused; this reflection can lead to mental disability like *Chittodwega* i.e., anxiety disorders.[3]

In Ayurveda various psychological disorders are mentioned, which show some similarity with the anxiety disorders, *Chittodwega* seems to be nearest term for anxiety disorders, which is one of the psychological disorders described by *Acharya Charaka*. Various texts have described many terms related to mental status i.e., *Chittavibramsa, Chittanasa, Chittavibrama, Chittaviparyaya, Anavasthita Chitta* etc. But *Chittadwega* seems to be more appropriate for the anxiety disorder. The etiology of *Chittodwega* clearly indicates the anxious status of mind.[4]

Examinations are part of every curricular activity. These are often tiresome and extremely stressful for students at any level of education. Stressful feelings can alter the ability to think during examination everybody experiences anxiety from time to time. Sometimes it has a clear cause examination though this type of anxiety can be quite disruptive, it is transitory and disappears in short order. But the unpleasant feelings associated with anxiety can also have no apparent cause and can become a chronic condition.[5]

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Performance anxiety is known problem in most of the students they develop this anxiety and tends to do the mistake. Hence anxiety (*Chittodwega*) has to be controlled through various modalities of intervention which includes self-appraisal behavior modification, counseling and self-motivating techniques. Anxiety (*Chittodwega*) is very common problem among students and understanding anxiety (*Chittodwega*) becomes a need of hour. So, with this view present study is planned to explain and understand the description of anxiety (*Chittodwega*) disorder in Ayurveda and compared with modern parlance in 1st year BAMS students and holistic approach in combating anxiety (*Chittodwega*) related problems or disorders among the students.

REVIEW OF LITERATURE

Scriptures of Ayurveda has mentioned the 'abnormal status of mind', i.e., Psychopathology in various contexts. *Caraka* states that *Raja* and *Tama* are chief Pathogenic factors of the mind and due to them many *Manasa Vikaras* are produced like *Kaama, Krodha, Soka, Chittodvega*[6] etc., The term *Chittodvega* comprises of two words i.e., *Chitta* and *Udvega*. *Chitta*: It is derived from root "*Cit*" which denotes the following meanings: To perceive, fix the mind upon, attend to, beat tentive, to observe, take notice of, to aim at, intend, to be anxious about, care for, to resolve, to understand, comprehend, know, make attentive.

The main *Dosas* of the *Manasa* are *Rajas* and *Tamas*,[8] Hence the *Nidnana,* which vitiate *Rajas* and *Tamas* may be considered as etiological factors of *Chittodvega.* Following three factors are responsible for the all physical and mental diseases.[9]

1. *Prajnaparadha*

2. *Parinama*

3. *Asatmendriyarthasamyoga*

Dorland's illustrated medical dictionary defines Anxiety as it is the unpleasant emotional state consisting of psychophysiological responses to anticipation of unreal or imagined danger, ostensibly resulting from unrecognized intra psychic conflict. Physiological concomitants include increased heart rate, altered respiration rate, sweating, trembling, weakness and fatigue; psychological concomitants include feelings of impending danger, powerlessness, apprehension and tension.[9]

Anxiety Disorders

As we know the unity of the body, mind and spirit is quite complex. Mental imagery, entrainment theory, divinity theory, split- brain research, and beta-endorphins all approach the same unity, each from a different vantage point, and each supporting the ancient axiom that "all points connect".[10]

Concept of Examination Anxiety

Students of higher institutions are associated with anxiety especially when they are preparing for examinations. Examination anxiety is a phenomenon that is associated with low performance of student's academic achievement. Because Lower courses' grades, decreased motivation and increased stress.

Examination anxiety is a combination of physiological, over-arousal, tension and somatic symptoms along with worries, dread, fear of failure and catastrophizing that occur before or during examination situations Examination anxiety has immense negative impact, hence students' low academic performance in schools.[11]

AIMS AND OBJECTIVES

To assess *Chittodwega* amongst 1st year BAMS students.

MATERIALS AND METHODS

Source of Data

Study design

Observational study: 100 students were selected from Ashwini Ayurvedic Medical College, Tumkur.

Methods of Collection of Data

100 BAMS students appearing examination were selected from Ashwini Ayurvedic Medical College, *Tumkur* and their *Chittodwega* status will be assessed according to parameters.

Plan for the Study

- A standard questionnaire will be prepared and distributed among 100 UG students and their responses will be assessed.

- The result will be assessed, analyzed and tabulated according to the respond given by the students and the score.

- The *Chittodwega* pattern in those individuals is assessed before, 15 days before and 15 days after their exams with the help of a questionnaire. In order to check the *Chittodwega* pattern of students in regular routine period,

- *Chittodwega* in terms of Exam anxiety in those individuals is assessed 15 days before and 15 days after their exams with the help of Hamilton Anxiety scale.

OBSERVATION AND RESULTS

Wilcoxon Signed Rank Test

The Wilcoxon signed-rank test is used to determine whether there is a median difference between paired or matched observations. This test can be considered as the nonparametric equivalent to the paired-samples t-test. The participants are either the same individuals tested on two occasions or under two different conditions on the same dependent variable.

Table 1: Wilcoxon signed rank test *Bhaya Vishedana*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Bhaya After Exam - Bhaya Before Exam	Negative	78	39.50	-8.154	0.000
	Positive	0	.00	-	-
	Ties	22	00	-	-
	Total	100	--	-	-

Wilcoxon signed rank test showed that *Bhaya Vishedena* a statistically significant reduction in the 100 students After examination (z = -8.15, p=0.000).

Table 2: Wilcoxon signed rank test *Shoka Dhainyena*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Shoka After Exam - Shoka Before Exam	Negative	0	.00	-6.838	0.000
	Positive	52	26.50	-	-
	Ties	48	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that *Shoka Dhainyena* a statistically significant reduction in the 100 students After examination (z = -6.83, p=0.000).

Table 3: Wilcoxon signed rank test *Mana Artheshu Avyabhicharanena*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Mana After Exam - Mana Before Exam	Negative	21	11.00	-4.208	0.000
	Positive	0	.00	-	-
	Ties	79	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that Mana-artheshu avyabhicharanena a statistically significant reduction in the 100 students After examination (z = -4.20, p=0.000).

Table 4: Wilcoxon signed rank test *Chinta*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
ChintaAfter Exam - Chinta Before Exam	Negative	82	41050	-8.131	.000
	Positive	0	.00	-	-
	Ties	18	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that Chinta a statistically significant reduction in the 100 students After examination (z = -4.20, p=0.000).

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Table 5: Wilcoxon signed rank test *Dhairyam*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Dhairyam After Exam – Dhairyam Before Exam	Negative	0	0.00	-6.259	0.000
	Positive	46	23.50	-	-
	Ties	54	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that Dhairyam a statistically significant reduction in the 100 students before examination (z = -6.259,p=0.000).

Table 6: Wilcoxon signed rank test *Driti Alaulyena*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Driti alaulyena After Exam - Driti alaulyena Before Exam	Negative	51	26.00	-6.567	.000
	Positive	0	.00	-	-
	Ties	49	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that Driti- Alaulyena a statistically significant reduction in the 100 students before examination (z = -6.567,p=0.000).

Table 7: Wilcoxon signed rank test *Harsha*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Harsha After Exam - Harsha Before Exam	Negative	66	33.50	-8.124	.000
	Positive	0	.00	-	-
	Ties	34	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that Harsha a statistically significant reduction in the 100 students before examination (z = -8.124,p=0.000).

Table 8: Wilcoxon signed rank test *Priti*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Priti After Exam - Priti Before Exam	Negative	18	9.50	-4.234	.000
	Positive	0	.00	-	-
	Ties	82	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that Priti a statistically significant reduction in the 100 students before examination (z = -4.234,p=0.000).

Table 9: Wilcoxon signed rank test *Shraddha*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Shraddha After Exam – *Shraddha* Before Exam	Negative	18	9.50	-4.243	.000
	Positive	0	.00	-	-
	Ties	82	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that Shraddha a statistically significant reduction in the 100 students after examination (z = -4.243,p=0.000).

Table 10: Wilcoxon signed rank test *Medha-Grahanena*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Medha-grahanena After Exam *Medha-grahanena* Before Exam	Negative	17	9.00	-4.123	.000
	Positive	0	.00	-	-
	Ties	83	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that Medha grahanena a statistically significant reduction in the 100 students before examination (z = -4.123,p=0.000).

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Table 11: Wilcoxon signed rank test *Smriti Smaranena*

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Smriti Smaranena After Exam *Smriti Smaranena* Before Exam	Negative	17	11.00	-2.837	.005
	Positive	4	11.00	-	-
	Ties	79	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that *Smriti-Smaranena* a statistically significant reduction in the 100 students before examination (z = -2.837,p=0.005).

Table 12: Wilcoxon signed rank test Anxious mood

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Anxious mood - After Exam Anxious mood - Before Exam	Negative	86	43.50	-8.357	.000
	Positive	0	.00	-	-
	Ties	14	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that anxious mood a statistically significant reduction in the 100 students after examination (z = -8.357,p=0.000).

Table 13: Wilcoxon signed rank test Tension

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Tension - After Exam Tension - Before Exam	Negative	85	43.00	-8.250	.000
	Positive	0	.00	-	-
	Ties	15	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that that Tension a statistically significant reduction in the 100 students after examination (z = -8.250,p=0.000).

Table 14: Wilcoxon signed rank test Fear

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Fear After Exam - Fear Before Exam	Negative	89	45.00	-8.354	.000
	Positive	0	.00	-	-
	Ties	11	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that fear a statistically significant reduction in the 100 students after examination (z = -8.354,p=0.000).

Table 15: Wilcoxon signed rank test Insomnia

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Insomnia After Exam - Insomnia Before Exam	Negative	85	43.00	-8.140	.000
	Positive	0	.00	-	-
	Ties	15	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that insomnia a statistically significant reduction in the 100 students after examination (z = -8.140,p=0.000).

Table 16: Wilcoxon signed rank test Intellectual

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Intellectual After Exam - Intellectual Before Exam	Negative	57	29.00	-6.725	.000
	Positive	0	.00	-	-
	Ties	43	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that intellectual a statistically significant reduction in the 100 students after examination (z = -6.725,p=0.000).

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Table 17: Wilcoxon signed rank test Depressed mood

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Depressed mood After Exam - Depressed mood Before Exam	Negative	51	26.00	-6.304	.000
	Positive	0	.00	-	-
	Ties	49	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that depressed mooda statistically significant reduction in the 100 students after examination (z = -6.304,p=0.000).

Table 18: Wilcoxon signed rank test Muscular changes

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Muscular changes After Exam - Muscular changes Before Exam	Negative	24	12.50	-4.564	.000
	Positive	0	.00	-	-
	Ties	76	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that muscular changes a statistically significant reductioni n the 100 students after examination (z = -4.564,p=0.000).

Table 19: Wilcoxon signed rank test Sensory changes

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Sensory changes After Exam - Sensory changes Before Exam	Negative	31	16.00	-5.126	.000
	Positive	0	.00	-	-
	Ties	69	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that sensory a statistically significant reduction in the 100 students before examination (z = -5.126,p=0.000).

Table 20: Wilcoxon signed rank test Cardiovascular Symptoms

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Cardiovascular Symptoms After Exam - Cardiovascular Symptoms Before Exam	Negative	9	5.00	-3.000	.003
	Positive	0	.00	-	-
	Ties	91	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that cardio vascular symptoms a statistically significant reduction in the 100 students after examination (z = -3.000,p=0.003).

Table 21: Wilcoxon signed rank test Respiratory Symptoms

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Respiratory Symptoms After Exam - Respiratory Symptoms Before Exam	Negative	2	1.50	-1.414	.157
	Positive	0	.00	-	-
	Ties	98	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that respiratory symptoms a statistically significant reduction in the 100 students after examination (z = -1.414,p=0.157).

Table 22: Wilcoxon signed rank test Gastrointestinal Symptoms

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Gastrointestinal Symptoms After Exam - Gastrointestinal Symptoms Before Exam	Negative	27	14.00	-4.916	.000
	Positive	0	.00	-	-
	Ties	73	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that gastrointestinal symptoms a statistically significant reduction in the 100 students after examination (z = -4.916,p=0.000).

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Table 23: Wilcoxon signed rank test Genitourinary Symptoms

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Genitourinary Symptoms After Exam - Genitourinary Symptoms Before Exam	Negative	17	9.00	-4.123	.000
	Positive	0	.00	-	-
	Ties	83	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that genitourinary symptoms a statistically significant reduction in the 100 students after examination (z = -4.123, p=0.000).

Table 24: Wilcoxon signed rank test Autonomic Symptoms

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Autonomic Symptoms After Exam - Autonomic Symptoms Before Exam	Negative	41	21.00	-6.206	.000
	Positive	0	.00	-	-
	Ties	59	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that autonomic symptoms a statistically significant reduction in the 100 students after examination (z = -6.206, p=0.000).

Table 25: Wilcoxon signed rank test Behavior at interview

Parameters	Ranks	N	Mean rank	Z value	Signifi.
Behavior at interview After Exam - Behavior at interview Before Exam	Negative	80	40.50	-7.949	.000
	Positive	0	.00	-	-
	Ties	20	-	-	-
	Total	100	-	-	-

Wilcoxon signed rank test showed that behavior at interview statistically significant reduction in the 100 students after examination (z = -7.949, p=0.000).

DISCUSSION

Here a study is conducted to observe the level of anxiety before and after the exams. According to Yerkes-Dodson law, an optimal level of arousal is necessary to best complete a task such as an exam, performance, or competitive event. However, when the anxiety or level of arousal exceeds that optimum, the result is a decline in performance. Test anxiety is the uneasiness, apprehension, or nervousness felt by students who have a fear of failing an exam. The term "test anxiety" refers specifically to students; many workers share the same experience with regard to their career or profession. The fear of failing at a task and being negatively evaluated for failure can have a similarly negative effect on the adult, Management of test anxiety focuses on achieving relaxation and developing mechanisms to manage anxiety.

Students of higher institutions are associated with anxiety especially when they are preparing for examinations. Examination anxiety is a phenomenon that is associated with low performance of student's academic achievement. Because Lower courses' grades, decreased motivation and increased stress.

Examination anxiety has broader negative consequences, hence, affecting student's social, emotional and behavioral development as well as their feelings about themselves in school. Highly examination students' anxiety scores rate about 12% points below their low anxiety papers.

The Hamilton Anxiety Rating Scale (HAM-A, sometimes termed HARS), dating back to 1959, is one of the first rating scales to measure the severity of perceived anxiety symptoms. It is still in use today, being considered one of the most widely used rating scales. It has been used as a benchmark for more recently devised scales.

Various parameters are used to study the level of anxiety in individuals such as Anxious mood, Tension, Fear, Insomnia, Intellectual (Cognitive), Depressed mood, Somatic (Muscular), Somatic (Sensory), Cardiovascular Symptoms, Respiratory Symptoms,

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Gastrointestinal Symptoms, Genitourinary Symptoms, Autonomic Symptoms and Behavior at interview.

CONCLUSION

This study was undertaken to assess the *Chittodvega* in terms of Exam anxiety in 1st year B.A.M.S. students. A survey study was carried out using a self-designed questionnaire. And Exam anxiety was assessed by Hamilton Anxiety Rating Scale. Based on the various observations and taking the whole piece of this work into consideration, the following conclusions can be drawn: The study revealed that there was marked difference in grade of *Chittodvega* before and after the exams. The *Chittodvega* level decreased after exams compared to before exams. Study showed that there is a relation between Exam anxiety and health. Study showed marked difference in the health 15 days before and 15 days after exams and it is due to variations in the level of *Chittodvega*. Exam anxiety is having negative association with quality of life. The study revealed that *Chittodvega* with special reference to Exam anxiety is having adverse effect on health in students.

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