ANALYSES OF EXAM ANXIETY ON VARIOUS EXAMINATION INTERVALS
IN SELECTED UNIVERSITY STUDENTS

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ABSTRACT

Anxiety is a complex phenomenon, while Exam Anxiety is an aspect, in which individual who are going to attend exam experiences it. That can result in emotional and even physical distress. As exam is a long process which include theory and practicals, students may experience exam anxiety for a longer duration. The aim of the study is to analyze the exam anxiety on various exam intervals among University students. Descriptive study design with 158 anxiety questionnaires was collected from the health science students and their data’s were analyzed using SPSS 20.1. The Questionnaire was given to the students at three intervals prior to final model exam, university exam and practical exam. The data analysis has shown that there were significant differences among the three intervals of each year with F ratios 11.34, 25.02, 14.12 and 7.84 respectively for each year from I to IV at p<0.05. This study concludes that prior to the examination all the students are having exam anxiety at all the intervals.

Key words: Exam Anxiety, Anxiety Questionnaire, University students, Theory examination, Practical Examination, University examination.
INTRODUCTION

Exam anxiety is a physiological state causing over arousal, tension and somatic symptoms.\(^{(1)}\) Exam anxiety is an emotional reaction which most of the students faces before main exams that may interfere with their abilities.\(^{(2)}\) It causes poor attention, perception and reduction of thought fluency, which can lead to fear of failure, worrying, and catastrophic experience before and during the exams.\(^{(3)}\) Students experiences on anxiety which result in emotional and physical distress that leads to difficulty in concentration, emotional worry and mental stress.

Excessive anxiety could result in disruption of the attention and memory functions. This would affect learning efficiency of the individual and longtime existence may lead to disease. Anxiety could have negative impact on the performances.\(^{(3,4)}\) Exam anxiety at a minimal level is always beneficial, it makes students to work hard and prepare well for the examinations, but intense stress will result in multiple consequences like alterations in the mental and systemic health.\(^{(6)}\)

Exam anxiety denotes to cognitive and affective reaction and creates negative consequences results from the performance on a test.\(^{(5)}\) Anxiety may usually occur due to lack of preparation, poor study habits, last minute preparations, poor time managements and inefficient organization of the subjects. It may also happen by thinking of the last exam performances.\(^{(19,20)}\)

Examination in the health science students will always flows with theory

Exams for one hundred marks followed by a week or ten days interval prior to the practical examinations. Students need to pass both the theory and practical to move on to the next year, failure in a paper the students have to appear both theory and practical exams. So, the basic examination plan would be a challenging for the students who are not well prepare for their exams. This pattern of examination would stimulate an exam anxiety that may produce various other health issues.

Many research works revealed that exam anxiety is the main reason for numerous emotional disorders.\(^{(7)}\) The exam anxiety occurs due to multiple external factors which includes, pressure from the parents, peer pressure, pressure from the teachers, concentration on others opinion about their studies, thinking of future, competition with other students, poor relationship with other students, poor relationship with the teachers etc.\(^{(8)}\)

Exam anxiety will produce the student’s inability to think clearly, so it affects the performance of the students even though then has studied well. Management of the exam anxiety is a not very easy; it requires patience and acceptance of the facts. Nervousness during exams can be well handled by preparing better for the exams, avoiding last minute preparations, encourage active participation in the term exams.
Students need to prioritize all their activities to provide more room for other activities that are important as well. Time management may be the best tool for students.

Multiple studies were conducted to evaluate stress in university students, but there is a lack in empirical work involve in investigate factors affecting the examination stress of students during the exam time. There were no much studies on evaluating the exam anxiety at various intervals, this study will certainly evaluate the level of examination anxiety at various intervals and also aids to identify which levels of exams could produce more stress. So the aim of the study is to evaluate the analyses of exam anxiety on various examination intervals in selected university students.

MATERIALS AND METHOD:

This study was approved by the Institutional ethical committee, KG Hospital, Coimbatore. Study was designed to be descriptive study which involves Physiotherapy collegiate students who are going to appear for the final examinations at three intervals i.e., prior to the Final model exam (1st week), University theory exam (4th week) and University practical exam (7th week). Survey questionnaire was adopted from Nist& Diehl (1990). This questionnaire has got two parts, first part includes general demographic data and the second part includes ten questionnaires in Likert scale. Prior to the study consent was obtained from the institution head and a brief explanation was given to the participants. Instruction about the study was provided by an individual assessor who is not part of the study, the assessor has selected group of 20 students each and the questionnaire were given to them. Ten minutes was given to complete the questions and a brief instruction was given to the participants not to disclose the questions to their fellow students. After completing the participants were asked to drop the questionnaires in a box and a thank you note was given to them. A total of 210 questionnaires were collected and taken for analyses. Analyses were done by an evaluator who is also not involved in the study. The questions which are incomplete, improperly filled and overwritten were rejected and the final count was 158 were taken for analysis. The questionnaire was given at three intervals. To analyze the data, SPSS Statistic 20.1 was used. Repeated Measure – ANOVA was performed to analyze the data with 95% confidence interval; P value of P < 0.05 was considered statistically significant.
RESULTS AND DISCUSSION

The collected data were analyzed using descriptive statistics using SPSS 20.1.

Table 1: Demographic variables

<table>
<thead>
<tr>
<th>S.N</th>
<th>Characteristics</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td>19.5 ± 1.29</td>
</tr>
<tr>
<td>2</td>
<td>Male students</td>
<td>10.75 ± 4.57</td>
</tr>
<tr>
<td>3</td>
<td>Female students</td>
<td>23.5 ± 4.65</td>
</tr>
</tbody>
</table>

Table 2: Repeated measure ANOVA Analyses of Anxiety levels (Year wise)

<table>
<thead>
<tr>
<th>Year</th>
<th>Interval</th>
<th>Mean</th>
<th>SD</th>
<th>Overall (Mean ± SD)</th>
<th>F ratio</th>
<th>p - value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Year</td>
<td>1st week</td>
<td>24.5</td>
<td>5.9</td>
<td>25.5 ± 5.3</td>
<td>11.34</td>
<td>&lt;0.000047</td>
</tr>
<tr>
<td></td>
<td>4th week</td>
<td>24.5</td>
<td>5.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7th week</td>
<td>27.6</td>
<td>4.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II Year</td>
<td>1st week</td>
<td>26.7</td>
<td>5.5</td>
<td>27.6 ± 5.7</td>
<td>25.02</td>
<td>&lt;0.00001</td>
</tr>
<tr>
<td></td>
<td>4th week</td>
<td>25.9</td>
<td>6.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7th week</td>
<td>30.3</td>
<td>3.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III Year</td>
<td>1st week</td>
<td>27.0</td>
<td>5.9</td>
<td>28.9 ± 5.8</td>
<td>14.12</td>
<td>&lt;0.00001</td>
</tr>
<tr>
<td></td>
<td>4th week</td>
<td>29.4</td>
<td>6.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7th week</td>
<td>30.4</td>
<td>4.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV Year</td>
<td>1st week</td>
<td>28.6</td>
<td>6.2</td>
<td>30.0 ± 6.1</td>
<td>7.84</td>
<td>&lt;0.000859</td>
</tr>
<tr>
<td></td>
<td>4th week</td>
<td>30.0</td>
<td>7.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7th week</td>
<td>31.4</td>
<td>4.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*= Significant P value <0.05
Table 1 describes about the demographic variables, and the Means and Standard Deviations for Anxiety levels at 1st week, 4th week and 7th week for each year were given in Table 2. Repeated measures ANOVA demonstrated a significant difference among the means of each year, F – ratio was 11.34, 25.02, 14.12 and 7.84 respectively. All the three means of each year were significantly different from one another at p<0.05.

Exam anxiety is considered to be normal, healthy and helpful for life event.\(^{(9)}\) Researchers have become increasingly aware of the different temporal phases and stages in individuals experience of exam anxiety. Pre – exam phase represents anticipatory stage that may well begin several days before examination, Exam Phase represents confrontation stage and Post exam phase represents outcome stage. As all these phases and stages may be associated with different experiences of anxiety and call for different coping strategies.\(^{(15-17)}\) Mild anxiety is always beneficial during exams, but severe anxiety produces difficult in concentration, poor learning outcomes, and misinterpretation of information. Multiple studies show that increase levels of anxiety related to the poor performance in the exams and grades.\(^{(10)}\)

The examination process is also very lengthy including Theory papers, Viva Voce examination with multiple gaps in between leading to a total duration of about two months that usually lasts longer than 4 weeks.\(^{(12)}\) Majority of students found that they have to study for 6 to 8 hours without any pause or rest for...
preparation of their exams which has been found to have negative impact on health.\(^{18}\) Studying over night before exams creates fatigue and overall exertion among students which may lead to lower performance in examinations.\(^{21}\)

Studies showed that there are good numbers of individuals having good test anxiety when compared to the bad test anxiety. These findings were consistent from the previous studies in those the majority of the students experiences some level of exam anxiety during exams.\(^{11-13}\) In contrast to it some studies showed very less exam anxiety in students.\(^{14}\) The reasons may be the testing conditions, testing methods, result percentage and the subjects may affect the results. Majority of students have no knowledge regarding exam – taking and anxiety – reduction techniques.

It is already reported that students who are going to attend university exams, III and IV year, present significantly higher levels of anxiety compared to the students from I and II year. This could be because IV year is considered as a turning point in life. A student’s career path is solely determined based on the marks obtained in University exams. Thus, fear of future and responsibility to meet their parents/teachers expectations push the students under tremendous stress which is reflected in Anxiety scores.

**CONCLUSION:**

Our data showing the presence of high anxiety among the university students at all the intervals between the exams, suggests that it is worth providing student guidance and exam preparation tips to overcome exam anxiety. In our study the anxiety levels are higher at 7\(^{th}\) week among all years, which means that students are having more stress to face practical exams when comparing theory exams. This is a point to focus that students has to be teach with more practical approaches than theory that will gain confidence among them to face those practical exams. If required, affected students can also be directed to various training programs to reduce anxiety levels, time management skills, altering the sleep time to reduce fatigue levels and to enhance theory as well as practical performance in university exams.

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