

Effect Of Logotherapy On Academic Stress Of Senior Secondary School Students

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Abstract

This study examined the effect of Logotherapy on the academic stress of Senior Secondary School students. An experimental design using purposive and random sampling methods were used to conduct the study. The sample population consists of one hundred and twenty (120) Senior Secondary School students of OCAC College, Abuja, FCT, Nigeria. The research instrument; a self-developed and validated inventory (Academic Stress Inventory-ASI) was administered and students' scores determined their assigned group before and after the therapy. The data for the study were analysed using t-test and one way Analysis of Variance (ANOVA). The result of the data analysis revealed that Logotherapy was effective in reducing the academic stress of Senior Secondary School students without the interference of gender, religion and course of study. Based on the findings, it is evident that psychotherapeutic services in Schools are beneficial.

Key words: *Academic Stress, Logotherapy, Senior Secondary School Students, Experimental design.*

Introduction

School is a competitive place where people have many duties and responsibilities (Maria Guadalupe Acosta-Gomez, *et al*, 2018). This causes stress. Thus, there is a increasing reports of academic stress throughout the world (Sax, 1997) which makes issues of academic stress a matter of great concern not only in higher institutions of learning but also in Senior Secondary Schools. This calls for coping abilities to manage academic stress efficiently among students at all levels of learning.

Some of the causes of academic stress among Senior Secondary School students are heavy course workload, more difficult subjects (such as Mathematics, Accounting, Chemistry and Physics), new responsibilities, grades and competitions, too many home and family chores and

demands, not enough time, deadlines, decision about subjects and courses for future careers, interpersonal issues in school, physical school environments, procrastination, general adjustment, external barriers and situations (Maria Guadalupe Acosta-Gomez, *et al*, 2018; Ross, Niebling & Weckert, 1991; D'zurilla & Sheedy, 1991; Dong, 2005).

The extreme effects of academic stress range from academic failure through low academic output to physical and psychological impairment (Murphy & Archer, 1996). Frequent students' illness especially during examination times are caused by academic stress (Britton & Tesser, 1991; Goodman, 1993; Abouserie, 1994; Gesse & Moss, 1996). Students' physical and psychological breakdowns beyond the capacity of the College's Health

facilities are all examples of serious effects of academic stress on students.

There are existing research into the different methods of coping or stress management in such a situation, ranging from effective time management, social support, positive reappraisal and management in leisure (Blake & Vandiver, 1988) to 'productive study' methods (Kirschenbaum & Perri, 1982; Entwistle & Ramsden, 1983), starting large tasks well before due dates, breaking down large tasks into small ones and doing small tasks on a regular schedule (Britton & Tesser, 1991). These methods notwithstanding, academic stress is increasingly reported (Maria Guadalupe Acosta-Gomez, *et al*, 2018). This is because academic stress is not only caused by extraneous factors but also by factors inherent in the academic system and life itself.

This study therefore aimed to proffer the solution that would make Senior Secondary School students approach these challenges in a new dimension. Introducing the Logotherapy approach, the students are taught how to find meaning in life and consequently in academic and life challenges.

Logotherapy is an insight approach of psychotherapy which enables one to deal with problems through the identification of meaning as related to his/her existence. This is because one's identity or awareness of himself is a basic antecedent of behavior. There is no widely published work available in this part of the world in the area of academic stress of Senior Secondary School students and Logotherapy, thus, the relevance of this work.

The objective of this study is to:

- I. identify the causes of academic stress among the Senior Secondary School students

- II. ascertain the effect of Logotherapy as a psychotherapeutic technique to overcome academic related stress among Senior Secondary School students
- III. determine the effect of other variables such as gender, religion and course of study on the effectiveness of Logotherapy as a psychotherapeutic technique.

Four null hypotheses were formulated and tested:

- I. There is no significant difference in the level of the academic stress of Senior Secondary School students between the experimental group and the control group
- II. There is no significant difference in the effect of Logotherapy on the academic stress of the Senior Secondary School students and gender.
- III. There is no significant difference in the effect of Logotherapy on the academic stress of the Senior Secondary School students and religion.
- IV. There is no significant difference in the effect of Logotherapy on the academic stress of the Senior Secondary School students and course of study.

Meaning of Logotherapy

Logotherapy is a term coined from the word existential analysis by Victor E. Frankl in the 1930s to avoid confusion in usage by various existentialists of the period. The word 'Logotherapy' can be used interchangeably with the term 'existential analysis' (Asagba, 2009). The term Logotherapy literally means 'healing through meaning'. To Frankl (1988), Lukas (1986) and Fabry (1987), man's basic

motivation for living is to find meaning in life. It is believed that the search for meaning in life is the central goal of human existence and once the individual finds meaning for his existence, he would be able to bear the sufferings, problems, difficulties and challenges peculiar to human existence. Summing up this idea rather aptly is the existentialist phrase 'he who has a why to live for can bear almost anyhow.'

Logotherapy is an active-directive therapy aimed at helping people with meaning crises to find meaning for their existence. Indication of 'meaning crises' includes feelings of aimlessness or in some cases indirectly through addiction, alcoholism or depression. Logotherapy also employs techniques that are useful for treating phobias, anxiety, obsessive-compulsive disorders and medical ministry. The technique presupposes that people would live freely and responsibly if they can find meaning in life. It is thus being hypothesised in this work that Senior Secondary School students will be able to cope with stress if they can 'see the meaning' in the academic endeavours and stressors. This work presupposes that when Senior Secondary School students understand that academic stress is a means to achieving bigger goals in life, it becomes bearable and they are better able to cope.

Academic Stress and Stressor

Stress is a general term, which means any demand on a person that strains his capacity to cope with a situation (Bulgelski & Graziano, 1980). It is an ineffective and unhealthy reaction to change. It is the body's response to any undesirable mental, physical, emotional, social or environmental demand (Akinboye, 2002). Academic stress is used in this work as the ineffective and unhealthy reaction to the demands of the changes in the task and process of learning.

A stressor describes any stimulus that causes stress response in an individual. Stress results from failure to adequately cope with stressor. Events and situations to which people must adjust to are known as stressors. It could also be seen as any event or situation that causes a change in an individual.

Experimental design

Experimental research attempts to create a design scheme in which the concluded results can be thought of as the best, most logical solution to the question at hand. This is accomplished through random assignment of individuals to interventions or treatments (Michigan State University, College of Education, 2004).

Specifically, experimental designs must have random selection of subject, use of control groups, random assignments of individuals to the control and experimental groups, and random assignment of groups to the intervention (Henrichsen, Smith & Baker, 1997). The task is not as straightforward, but through efforts such as matching subjects and statistical analysis, the true experiment is mimicked (Morgan, Gliner & Harmon, 2000; SERVE Center, 2007). Standardized assessments are utilized in the experimental design

Method

Experimental design employing pre-test/post-test control group research design was utilized. The target population consists of the Senior Secondary School Student of OCAC College, Abuja, FCT, Nigeria.

At the pre treatment stage, participants for the study were selected after a briefing session among the targeted one hundred and ninety-five(195) students who collected and filled the research instrument. The self-developed and validated research instrument 'Academic Stress Inventory' (ASI) has two

sections, Section ‘A’ consists of personal information while Section ‘B’ contains sixty (60) items, which are indicators of academic stress.

The statements were assigned weight and students were asked to respond to each of the statements by indicating the response that best describes their personal experience of academic stress. The scores have a theoretical score range of ninety to zero (0-90).

The one hundred and twenty (120) students selected for the study were from those who obtained high scores of 51 and above.

Purposive sampling based on sex and the level of academic stress was used in selecting one hundred and twenty (120) students out of those who completed the research instrument. Through stratified random sampling, they were categorized into experimental and control groups of sixty (60) students each from those who were experiencing high level of academic stress based on their scores on the Academic Stress Inventory.

The experimental group was exposed to treatment by Logotherapy while the control group was given placebo in the form of vocational information on future trends of disciplines (Later treated with the therapy after the research).

The first administration of the instrument provided data for the pretest –

students that scored 51 and above on ASI. The second administration of the research instrument took place after the treatment of the experimental group for three weeks. During the three weeks, the students in the experimental group were subjected to Logotherapy. The control group was given placebo. The data collected i.e. scores on the ASI were used as post-test measure of the subjects’ level of academic stress.

The test-retest method of reliability was used to determine the reliability of the research instrument, and it yielded a correlation coefficient of .78 on two administrations, which is significant at 0.05 ($r=0.78, n=60, p<0.05$). This is considered high enough to justify the reliability of the instrument. The data for the study were analysed using t-test and one way Analysis of Variance (ANOVA). The conventional acceptance level of probability value of .05 at most was the criterion of being significant.

Result

The result of the data analysis revealed that Logotherapy was effective in reducing the academic stress on the students without the interference of gender, religion and course of study. The experimental group treated with Logotherapy recorded a considerable reduction in their level of academic stress over and above the control group not treated with Logotherapy.

Table 1: Difference Between the Level of Academic Stress of Students in Experimental and Control Groups

| | N | M | SD | Df | T | F |
|------------------------|----|-------|-------|----|-------|-------|
| Pretest Experimental | 60 | 62.43 | 10.12 | | | |
| Pretest Control | 60 | 62.26 | 8.83 | 58 | -0.07 | >0.05 |
| Post-test Experimental | 60 | 12.80 | 4.44 | | | |
| Post-test Control | 60 | 62.16 | 9.02 | 58 | 25.22 | <0.05 |
| Pretest Experimental | 60 | 62.43 | 10.12 | | | |
| Post-test Experimental | 60 | 12.80 | 4.44 | 58 | 26.51 | <0.05 |
| Pretest Control | 60 | 62.26 | 8.83 | | | |
| Post-test Control | 60 | 62.16 | 9.02 | 58 | 0.43 | >0.05 |

Pre-test mean score of experimental group was 62.43 with a standard deviation of 10.12 while the control group had 62.26 and 8.83 respectively. The t-test comparison of these values yielded a t-value of -0.07, which is not significant at the 0.05 level of confidence (df=58, P=>0.05), meaning the two groups were not significantly different in their level of academic stress prior to the treatment with Logotherapy.

Post-test mean score of experimental group was 12.80 with a standard deviation of 4.44. A statistical test of significance between these values and the pre-test scores of the group (M=64.63, SD=10.12) yielded a t-value of 26.50, which is statistically significant at 0.05 level (df=58, P<0.05). This shows that Logotherapy significantly reduced the level of academic stress of the subjects in the experimental group.

To ascertain whether or not the significant difference in the pre-test and post-test scores of the experimental group was actually due to the effect of the therapeutic intervention, the post-test scores of the experimental group (x=14.80, SD=4.44) were compared with the post-test scores of the control group (x=64.16,

SD=9.02). The t-test analysis yielded a t-value of 25.22, which is significant at 0.05 level. This suggests that a considerable reduction in the level of academic stress of the subjects in the experimental group was due to the logotherapeutic intervention.

A further comparison of the pre-test scores of the control group (M=64.46; SD=8.83) with the post-test scores (M=64.16; SD=9.02) were also carried out. This yielded a t-value of 0.43 which is not significant at 0.05 level (df = 58, P > 0.05). This suggests that subjects in the control group did not record any significant reduction in their level of academic stress at the end. This further confirms that the significant reduction in the level of the academic stress of the experimental subjects could be attributed to the effect of the therapeutic intervention and not to the possible effect of history, maturation and testing on the experimental subjects.

From these results, it was concluded that Logotherapy was effective in the reduction of the level of academic stress of the experimental group as against the control group, on the basis for which the first hypothesis was rejected.

Table 2: Difference in the Level of Academic Stress of Male and Female Subjects due to Logotherapy

| Sources | Group | N | M | SD | Mean diff | df | T | P |
|----------------|--------|----|-------|-------|-----------|----|------|-------|
| Before Therapy | Male | 15 | 65.06 | 9.85 | 0.86 | 28 | 0.40 | >0.05 |
| | Female | 15 | 64.2 | 10.71 | | | | |
| After Therapy | Male | 15 | 15.33 | 4.62 | 1.07 | 28 | 0.63 | >0.05 |
| | Female | 15 | 14.26 | 3.35 | | | | |

The result of the second hypothesis indicated that the significant difference recorded in the level of the academic stress of the subjects treated with Logotherapy was not based on gender. Though the result shows that the effect of Logotherapy was more evident in female students with the mean score of 14.26 and a standard deviation of 3.35 compared to the mean

score of 15.33 and a standard deviation of 4.62 for the male resulting in a mean difference of 1.07, which is not significant at 0.05 level of confidence. For this, the second hypothesis that there is no significant difference in the effect of Logotherapy on the academic stress of the Senior Secondary School students of OCAC College, Abuja, based on gender was accepted.

Table 3: Difference in the Level of Academic Stress of Christian and Muslim Subjects due to Logotherapy

| Sources | Group | N | M | SD | Mean diff | df | T | P |
|----------------|-----------|----|-------|-------|-----------|----|------|-------|
| Before Therapy | Christian | 15 | 67.66 | 12.47 | | | | |
| | Muslim | 15 | 61.6 | 6.09 | 6.38 | 28 | 1.52 | >0.05 |
| After Therapy | Christian | 15 | 61.2 | 4.02 | | | | |
| | Muslim | 15 | 13.4 | 3.66 | 2.8 | 28 | 1.44 | >0.05 |

The result of the third hypothesis indicated that the significant difference recorded in the level of the academic stress of the subjects treated with Logotherapy was not based on religion. The pre-test mean scores of Christian and Muslim groups were 67.66 and 61.66 with standard deviations of 12.47 and 6.09 respectively. A t-test comparison of these scores yielded a t-value of 1.52, which is not significant at 0.05 level (df = 28, P > 0.05). This suggests that both groups did not differ significantly in their levels of academic stress prior to the logotherapeutic intervention. The post-test mean score of the Christian group was 16.2 and a standard deviation of 4.02 while the Islamic group

had a mean score of 13.4 and a standard deviation of 3.66. A statistical test of significance of the difference between the post-test scores of the two groups revealed a t-value of 1.44, which is not significant at 0.05 level (df = 28, P > 0.05). This suggests that religion of the subjects did not significantly influence the effect of Logotherapy in reducing the academic stress of experimental subjects after the therapy. For this, the third hypothesis that there is no significant difference in the effect of Logotherapy on the academic stress of the Senior Secondary School students of OCAC College, Abuja, based on religion, was accepted.

Table 4: Difference in the Level of Academic Stress of Subjects in Three Classes (Sciences, Social Sciences, Arts) Before Logotherapy

| Sources of Variation | Sum of squares | Df | Mean squares | F | P |
|----------------------|----------------|----|--------------|------|------|
| Between Group | 472.46 | 2 | 236.23 | | |
| Within Group | 2502.5 | 27 | 92.68 | 2.55 | 0.05 |
| Total | 2974.96 | 29 | | | |

Table 5: Difference in the Level of Academic Stress of Subjects in Three Classes (Sciences, Social Sciences, Arts) After Logotherapy

| Sources of Variation | Sum of squares | df | Mean squares | F | P |
|----------------------|----------------|----|--------------|------|-------|
| Between Group | 21.6 | 2 | 10.8 | | |
| Within Group | 551.2 | 27 | 20.41 | 0.52 | >0.05 |
| Total | 572.8 | 29 | | | |

The result of data analysis revealed that the significant difference recorded in the level of the academic stress of the

subjects treated with Logotherapy was not based on course of study. In testing this hypothesis, the pre-test and post-test

measures of the levels of academic stress of participants in the three different departments: Science, Social Sciences and Arts, were subjected to One-Way Analysis of Variance (ANOVA) statistical test. These finding yielded an F-ratio of 2.55, which is not significant at 0.05 levels. This implies that the subjects in the three departments did not differ significantly in their level of academic stress. In table 5 that presented the Anova result of the differences in the course of study among the participants treated with Logotherapy in respect to reducing the level of their academic stress, the result yielded a F-ratio of 0.52. This is not significant at the 0.05 level ($df = 29, P > 0.05$), which suggests that course of study of subjects treated with Logotherapy did not significantly influence the reduction in their level of academic stress. Therefore, the hypothesis that there is no significant difference in the effect of Logotherapy on the academic stress of the Senior Secondary School students of OCAC College, Abuja, based on course of study is accepted.

Discussion and Conclusion

The major finding of this study is that Logotherapy significantly reduced the level of academic stress of Senior Secondary School students. This is evident in the significant reduction in the level of academic stress of the experimental group over the control group. This being the case, this study pioneers the empirical study of the relative efficacy of Logotherapy on academic stress. Though a lot of research abounds in the area of Logotherapy, it is noteworthy that these have been mostly conducted by Western researchers on their population.

The result of the research that Logotherapy effectively reduces the level of academic stress of Senior Secondary School students of OCAC College irrespective of

gender, religion or course of study supports several findings and assertions of works on Logotherapy. It supports the assertion of Frankl (1978) that Logotherapy is effective in treating any form of psychogenic neurosis such as phobia, anxiety and obsessive-compulsive behaviors

The result of the data analysis that Logotherapy was effective in reducing the level of academic stress of Senior Secondary School students of OCAC College, Abuja, irrespective of gender, religion and course of study backs up the assertion of the effectiveness of Logotherapy in addressing human problems. The success of Logotherapy may be due to its eclectic nature of being a conglomeration of philosophy, theology and psychology. This enables the technique to have a door of entrance to any and everyone with whatever kind of orientation, background, worldview or perspective. Therefore, Logotherapy has relevance in guiding people to find meaning in life.

Recommendation

Within the academic setting, the research has implication for teachers especially those who are opportune to mould the life of students at the early stage of their career/endeavour. The teacher has many roles to play in preventive therapy, such as an instructor, motivator and therapist; their role should inspire a sense of meaning in the students' lives. It is their job to assist the students in making meaning of their academic pursuit. If the students can be helped to see a 'why' of academics, they would be able to positively cope with the 'how' of studies.

It is hereby recommended that there should be a special course in the curriculum of studies in all institutions of learning especially at the Secondary School level that will impart the meaning of life to students.

Just as training on time management is being packaged as part of the orientation programme for new students into Secondary Schools, so also should Logotherapy, the concept and meaning of life, be included. This should be frequently done possibly at the beginning of each academic session or term.

The effect of Logotherapy on the academic stress of Senior Secondary School students show that students could be better helped if the school authorities emphasize the need for psychotherapy to students. All school counsellors, psychologists, student affairs' officers and health personnel should be efficient in the use of Logotherapy in order to be of help to students who are going through academic stress.

Though the success of Logotherapy is reported among counsellors and psychologists in the Western world, not much of its application is known in Africa and other developing continents of the world. Therefore, this study opens up Logotherapy for further empirical research as it affects academic stress in Secondary Schools.

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