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The Effects of Stress Inoculation Training on the Anxiety and Academic Performance of Adolescents with Visual Impairment

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Abstract: This study examines effects of stress inoculation training on the anxiety and academic performance of adolescents with visual impairment. The study employed a pre and post-test experimental group design in which the participants' completed test anxiety scales. The study was carried out over a period of 8 weeks. The result shows that there was a significant difference in the effect of treatments given to the adolescents which visual impairment. The overall assessment of stress inoculation training shows that it is a useful behaviour change strategy.

Key words: Stress inoculation, anxiety, academic performance, visual impairment

INTRODUCTION

Generally, individuals in our society often become anxious from time to time. Feeling of anxiety are caused by experiences of life, such as loss of one's sight, job, relationship breakdown, serious illness, a major accident and death of someone close.

Anxiety is a state of intense apprehension, uneasiness, uncertainty, or fear resulting from the anticipation of a threatening event or situation, often to a degree that the normal physical and psychological functioning of the affected individual is disrupted. When an individual is anxious, he/she would have the feeling that something terrible is going to happen to him/her and such a person will appear to be powerless to change it.

The psychological side of anxiety includes a specific conscious inner attitude and a peculiar feeling state characterised by: Physically as well as mental painful awareness of being powerless to do anything about a personal matter; presentation of an impending and almost inevitable danger; a tense and physically exhausting alertness as if facing an emergency; an apprehensive self-absorption which interferes with effective and advantageous solution of reality's problems; it can be by an irresolvable doubt concerning the nature of the threatening evil, concerning the probability of the actual appearance of the threat, concerning the best objective means of reducing or removing elif evil and concerning one's subjective capacity for making effective use of those means if and when the emergency arises. From the foregoing discourse, one can see that, anxiety has both cognitive and affective components.

Halgin and Whitourne note that people with anxiety disorders are incapacitated by chronic and intense feelings of anxiety, feelings so strong that they are unable to function on a day-to-day basis. Their anxiety is unpleasant and make it difficult for them to enjoy many ordinary situations. In addition, they try to avoid situations that cause them to feel anxious. As a result, they may miss opportunities to enjoy themselves or to act in their own best interest.

The visually impaired feel anxious because of their visual problems, thinking about how to cope with day-to-day activities, how to live an independent life and how to cope with the problem of blindness. Further, one of the major factors that bring anxiety problem to people that are visually impaired is the society's reaction to people who are blind. This is because visual impairment seem to evoke more awkwardness than more other disabilities because blindness is a visible disability. While walking, the virtually impaired hold a cane, guide dog, sighted guide and use dark glasses.

Another reason why the visually impaired are so anxious is the role that eyes play in social interaction. People generally believe it is very uncomfortable to talk with people who do not make eye contact because people believe to talk face-to-face on matters that are important.

Anxiety is very prominent among the visually impaired in that, they believe that, sight is linked so closely with the traditional concept of beauty. Every individual derives great pleasure from their sight. As individuals, our feelings about people around us are often based largely on physical appearances, visually perceived.

So, despite the fact that blindness is the least prevalent of all disabilities, at least in children, people dread it. It is reported to be the third most feared condition, with only cancer and AIDs out ranking it

(Jernigan, 1992). Also, this is why (Kleege, 1999) narrated how our use of language reinforces a negative view of blindness thus!

> "The word blindness has always been more than merely the inability to see. Throughout history of the language and in common usage today, the world (blind) connotes a lack of understanding, a willful disregard or obliviousness, a thing meant to conceal or deceive. In fact, when you stop to listen, the word is far more commonly used in its figurative than its literal sense. And it comes up so often; blind study, blind devotion, blind luck, blind alley, blind taste, test, double-blind study, flying blind, blind submission, blind side, blind spot, pick up any book or magazine and you will find dozens of smiles and metaphors connecting blindness and blind people with ignorance, confusion, indifference, ineptitude."

For these reasons, the visually impaired individuals have reasons to be anxious. This anxiety has a lot of influence on the visually impaired academic performance. The performance of secondary school visually impaired students has been of much concern to professionals in the area of special education.

In the general educational sector, there is a general outcry among educators, newscasters, parents and other members of the public concerning the poor performance of the students in our schools (Asonibare and Olayonu, 1997; Okwilagwe, 2001). The issue is not that of the visually impaired alone; it is a general problem in the educational sector. Various causes have been identified and attributes to this problem of below average academic performance.

Among these causes were lack of adequate supervision, indiscipline, truancy and drug abuse lack of motivation among students and teachers (Raimi, 1993) inadequate categories of certain group of teachers and the tender age at which students start school (Oyekan, 1993) and inadequate funding and teaching and learning facilities in schools (Ajayi, 1999). For the students that are visually impaired, their problems is that of motivation on the part of parents, society attitudes in terms of responses, problem of finance, special teaching and learning facilities, the environment and level of recognition of these specially challenged individuals by the relevant authorities. These aforementioned factors have affected the academic performance of this group of individuals.

In this connection, there is the need to improve the anxiety level and academic performance of the visually impaired in the Nigerian society. This is necessary because, anxiety can damage the cells of the body of the visually impaired. Individuals who are anxious find it difficult to thinking well and function well in the society. In fact, such a person's performance in school will be affected. This underscores the need to improve the anxiety level and academic performance through stress inoculation training.

According to Mecheubaum (1983) stress inoculation training is not a single technique. It is a generic term referring to treatment paradigm consisting of a semi-structured, clinically sensitive training regimen. According to him, stress inoculation training combines elements of didactic teaching, Socratic discussion, cognitive restructuring, problem-solving and relaxation training, behavioural and imarginal rehearsal, self-monitoring, self instruction and self-reinforcement and efforts at environmental change.

To students who are visually impaired, this technique will assist them to develop coping skills in order to cope with the anxiety problems that might result from the problem of visual impairment, this in turn will help in improving their academic performance.

Stress Inoculation Training (SIT) has been successfully evaluated in a wide variety of psycho-education, prevention and remediation programme (Mihenbanm and Deffenbancher, 1988). These include anger control (Timmons *et al*., 1997) pain management (Hackett and Harna, 1980; Ross and Berger, 1996) test and performance anxiety (Saunders *et al*., 1996; Scheneider and Nevid, 1993).

According to Meichembanm (1993) SIT involves three phases. First, participants are educated about the sources of their stress. Second, coping skills directed towards specific stressors and finally, the application phase which involves exposure to real or simulate situation for practice in using the coping skills.

Finally, Stacey (1999) opine that visual impairment students who had SIT would rate SIT important than control students who had no therapy. He further states that female SIT students performed better than male SIT students who had no therapy.

From these discussions, the expectation is that the SIT programme would result in improving the anxiety and academic performance of adolescents with visual impairment. The purpose of the present study therefore, was to use stress inoculation training to reduce the anxiety of the virtually impaired and thus, enhance the academic performance of the adolescents with visual impairment. Consequently, it is hypothesized that:

- There is no significant difference in the post-test achievement scores of visually impaired adolescents exposed to stress inoculation training and those in the control group.

- There is no achievement scores of male and female visually impaired adolescents exposed to stress inoculation training.

MATERIALS AND METHODS

Design: The study employed pre and post-test experimental control group design in which the treatment (at two levels) was crossed with gender and degree of blindness at two levels.

Participants: Participants were 49 visually impaired adolescents from Federal College of Education, Oyo, Nigeria. The 49 participants were assigned randomly into the two groups. Out of this figure, 20 were partially sighted while 29 were totally blind. There were 10 partially sighted in each group and 15 and 14 totally blind, respectively.

Instruments

Test Anxiety Scale (TAS): This 37 items measure was developed by Sarason (1980). The purpose was to use it to measure anxiety associated with examinations/test. To find out the psychometric properties f the instrument, Adegode conducted a pilot test with test reliability coefficient of 0.85 over a period of three weeks. This is an indication that the test is still reliable. He also established high content validity of this instrument by the concurrence of four counselling psycho-metricians who all agreed that it measures what it purports to measure.

Intervention: Participants in the experimental group participated in eighty-one hours session, which held once in a week. The group content includes the following: administration of the TAS, identification of the physiological signs of stress, personal adjustment to stress, positive coping skills to stress, recreational therapies to reduce the problem of stress, success building skills to stress, health management techniques to stress and behavioural rehearsal and administration of post-test instrument. They were all expected to reduce the problem of anxiety and improve academic performance.

RESULTS

Hypothesis one: This hypothesis states that there is no significant difference in the post-test achievement scores of adolescents exposed to stress inoculation training and those in the control group.

The statistical analysis employed and details of obtained results are presented in Table 1.

The hypothesis was tested using ANCOVA, the results are presented in Table 1.

Table 1: Summary of ANCOVA of post-test performance scores of students according to level of anxiety, gender and level of visual impairment

Source of variance	Df	Sum of squares	Mean square	F	Sig.
Covariate pre-score	1	132.448	132.448	3.43	0.07
Treatment	1	3441.150	3441.150	80.82	0.00
Sex	1	133.767	133.767	3.17	0.03
Level	1	7.645	7.645	0.18	0.42
Sex X level	1	3.743-03	3.7434-03	0.00	1.00
Error	32	1362.49	42.578		
Total	37	5677.5			

From Table 1 F (1/32) = 80.82 and it is significant at $\propto = 0.00$. This is an indication that there s a significant difference in the effect of treatments given to the adolescents with visual impairment under stress inoculation training when compared to those in the control group. The adolescents with visual impairment really appreciate the treatment they received.

Hypothesis 2: The second hypothesis states that there is no significant difference in the post-test achievement scores of male and female adolescents with visual impairment exposed to stress inoculation training and the control group.

This hypothesis is also tested using ANCOVA and the result is as shown in Table 1. From Table 1, the F $(1,32/\propto = 0.03) = 3.17$. This is an indication that there is gender difference in the rate of assimilation and performance of adolescents with visual impairment under stress inoculation training with respect to gender.

DISCUSSION

This study examined the effects of stress inoculation training on anxiety and academic performance of adolescents with visual impairment.

The first hypothesis proposed that there is no significant difference in the post-test achievement scores of adolescents exposed to stress inoculation training and the control group. The finding shows that there is significant difference in the post-test achievement scores of visually impaired adolescents exposed to stress inoculation training. This is in line with Stacey (1999) which stated that students who had personal therapy would perform better than students who had no therapy. This is an indication that the therapy is effective in improving academic performance of the visually impaired subjects under stress inoculation training.

Hypothesis 2 proposed that there is no significant difference in the post-test achievement score of male and female adolescents with visual impairment exposed to stress inoculation training. The findings show that there is a significant gender difference in the rate of assimilation and performance of adolescents with visual impairment

under stress inoculation training. This findings is in line with Stacey (1999) that female SIT students who had no therapy.

CONCLUSION

The results from this study indicate that intervention appears to have an impact on visually impaired academic performance while stress inoculation training had positive impacts, further research is needed to compare two intervention strategies and determine which one (if any) has greater impact or whether they might successfully be used together. The overall assessment of stress inoculation training shows that it is a variable behaviour change strategy.

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