

EFFECT OF SYSTEMATIC DESENSITIZATION ON SEPARATION ANXIETY DISORDER AMONG SECONDARY SCHOOL STUDENTS IN ORLU EDUCATION ZONE OF IMO STATE

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Abstract

The study determined the effects of systematic desensitization on the separation anxiety disorder among secondary school students in Orlu Education Zone 1 of Imo State. The study was guided by two research questions and two null hypotheses tested at 0.05 level of significance. The study employed quasi experimental research design, involving pre-test, post-test treatments and control groups. The area of the study was at Orlu Educational Zone 1 of Imo State. The population of the study consisted of 28,956 junior secondary school students and the sample size was of 65 students with separation anxiety disorder drawn from public secondary schools in Orlu Educational Zone 1. The students with separation anxiety disorder was first identified using Separation Anxiety Disorder Identification Rating Scale (SADIRS). Two instruments were used for data collection which were validated. The reliability of the instruments was established using Cronbach Alpha with coefficient of 0.89 which was high for the study. The data collected were analysed using mean and standard deviation the mean gained and mean lost score were used to ascertain the effect of treatments. Mean and standard deviation were employed to answer research questions. The null hypotheses were tested using analysis of covariance (ANCOVA) and observed probability value (P-Value) at the set probability value of 0.05 level of significance. The findings revealed that systematic desensitization significantly reduced separation anxiety disorder among the students which showed greater effectiveness. These results underscore the potential of these therapeutic techniques to enhance the mental health and academic performance of students. Based on the findings of the study it was recommended that Schools should incorporate SDT into their mental health and counselling programs which provide an advanced based method for addressing separation anxiety disorder and other anxiety related issues. Systematic desensitization (SDT) are effective intervention for reducing separation anxiety disorder among Junior secondary school students. Counsellors and educators should integrate contingency management strategies into their behavioural interventions to assist students with anxiety disorders.

Keywords: Systematic Desensitization, Separation Anxiety Disorder, Anxiety Disorder, Desensitization

Introduction

Education is the cornerstone of national development, providing the foundation for individual growth, social mobility, and economic transformation. At its core, education equips learners with knowledge, values, and skills essential for survival in an ever-changing world. Secondary education, particularly at the junior level, serves as a bridge between primary education and higher learning, fostering critical thinking, emotional development, and character formation (Walid, et. Al., 2024). This stage of education is crucial for cognitive and social development, especially during early adolescence when learners begin to define their identity and aspirations. It is during this transitional period that students face increasing academic, social, and emotional demands.

Secondary school education provides learners with a platform for academic, social, and emotional growth. It introduces them to diverse subjects and extracurricular activities that nurture interests and talents essential for personal development and future career pathways (Adewale & Okafor, 2025). Moreover, it fosters peer relationships, self-esteem, and autonomy, preparing students to handle future challenges independently. The learning environment also encourages teamwork, leadership, and resilience, critical for national integration and development. However, for some students, transitioning into secondary school, especially at the JSS1 level, triggers psychological stress. The unfamiliar environment, increased academic workload, and separation from parents or guardians may become overwhelming. Despite the recognized importance of secondary education, a significant number of students still develop separation anxiety disorder during this formative phase, hindering their academic and social performance.

Separation Anxiety Disorder (SAD) is a psychological condition characterized by excessive fear or anxiety concerning separation from home or attachment figures. According to the American Psychiatric Association (2022), SAD is “developmentally inappropriate and excessive anxiety concerning separation from those to whom the individual is attached.” Similarly, Rapee et al. (2022) defined SAD as a persistent and excessive fear of being away from significant attachment figures, often leading to distress in social, academic, and personal functioning. Both definitions highlight the debilitating nature of the disorder, which interferes with normal developmental milestones. In junior secondary school settings, children with SAD may refuse to attend school, exhibit persistent worry about potential harm befalling their caregivers, or experience nightmares involving separation. The disorder can significantly impair learning and interpersonal relationships if not identified and managed effectively.

The dangers of separation anxiety disorder among adolescents are both immediate and long-term. Affected students may experience chronic absenteeism, poor academic performance, social withdrawal, and impaired emotional regulation. According to the Feriante, Torrico and Bernstein (2023), The prevalence of SAD is estimated at 4% in population-based studies, with an increase to 7.6% in pediatric clinical samples. Clinical data suggests that 4.1% of children exhibit a clinical level of separation anxiety, with approximately one-third persisting into adulthood if left untreated. In Nigeria, a study by Chinawa, et. al. (2018), that A cross-sectional survey of 1,500 adolescents (aged 11–20) in Enugu and Ebonyi states found that 34.1% of secondary school students exhibited anxiety symptoms (pediatric and psychosomatic issues), though it did not distinguish SAD specifically. For example, a student may repeatedly complain of physical symptoms like headaches or stomachaches to avoid school attendance, negatively impacting academic progress. Over time, untreated SAD may evolve into other anxiety disorders or depression. Therefore, there is a clinical need for intervention techniques such as systematic desensitisation, which aim to reduce emotional distress and foster adaptive coping strategies.

Systematic desensitisation is a therapeutic technique used in behavioural therapy to reduce phobic reactions and anxiety through gradual exposure. Egara and Mosia (2024) defined systematic desensitisation as a process by which a person is exposed to anxiety-provoking stimuli while being in a state of relaxation. Similarly, Nash (2022) described it as a therapeutic technique used to reduce phobias & anxiety by gradually exposing individuals to fear-inducing stimuli. This process involves relaxation training & creating a hierarchy of fears... Over time, systematic desensitization can help decrease anxiety responses, fostering coping skills & enhancing overall wellbeing. These definitions underscore the method's emphasis on conditioning and gradual exposure, facilitating the extinction of irrational fears. In the context of junior secondary education, systematic desensitisation enables students to confront their school-related fears progressively, empowering them to reintegrate into the school setting without overwhelming distress, thereby improving attendance and participation.

The application of systematic desensitisation has been shown to significantly reduce separation anxiety disorder symptoms among junior secondary school students when compared to those exposed to conventional counselling methods. In a study by Yusuf (2019), systematic desensitisation led to a significant reduction in separation anxiety, with post-test anxiety scores significantly lower than pre-test scores ($t = 4.486$, $p = .000$), compared to token economy intervention. This technique's effectiveness lies in its practical engagement—students are taught to associate relaxation with feared school situations through incremental exposure. For instance, a student might begin by visualizing school attendance, then progressing

to brief school visits, eventually building confidence for full reintegration. This gradual method enhances their emotional resilience, leading to better academic and psychosocial outcomes irrespective of gender.

Systematic desensitisation has shown significant therapeutic efficacy in managing separation anxiety disorder (SAD) among both male and female JSS1 students when compared with those exposed to conventional counselling. This behavioural technique, through gradual exposure and relaxation, helps students unlearn anxiety responses associated with school separation. Research by Lebowitz, et. al. (2021) revealed that exposure-based methods (a key component of systematic desensitisation) produce significantly greater reductions in separation anxiety and school refusal in children and adolescents than traditional counselling approaches, with no marked gender differences observed in response to treatment. This means that both male and female students undergoing systematic desensitisation experienced reduction in SAD symptoms, compared to those who received traditional counselling. Interestingly, male students showed slightly faster progress, attributed to higher responsiveness to exposure-based interventions. These findings suggest systematic desensitisation is more gender-responsive and outcome-driven than conventional methods in school-based anxiety management.

Given the profound psychological and academic implications of separation anxiety disorder among JSS1 students, especially in Orlu Education Zone I, this study becomes imperative. Many students in this zone face challenges such as low parental involvement, economic instability, and poor mental health services, which exacerbate their vulnerability to SAD. Without proper interventions, affected students are likely to experience diminished academic success and social integration. Hence, investigating the effect of desensitisation on separation anxiety disorder among junior secondary school (JSS1) students in Orlu Education Zone I is critical.

Statement of the Problem

Ideally, junior secondary school (JSS1) students are expected to transition smoothly into school life, develop independence, and engage actively in academic and social activities. A psychologically stable student should attend school willingly, interact confidently with peers and teachers, and exhibit minimal emotional distress. However, in reality, many JSS1 students in Orlu Education Zone I suffer from separation anxiety disorder (SAD), which significantly hinders their school attendance, academic performance, and social adjustment. These students often display excessive fear of leaving their caregivers, frequent complaints of illness, withdrawal, and emotional outbursts. Unfortunately, conventional counselling approaches employed in schools often fail to yield significant behavioural improvements. This creates a growing need for more targeted and effective therapeutic interventions. Thus, this study investigates the effect of systematic desensitisation on separation anxiety disorder among JSS1 students in Orlu Education Zone I, aiming to provide empirical evidence on alternative approaches for managing SAD within the educational context.

Purpose of the Study

The purpose of the study was to examine the effect of systematic desensitisation on separation anxiety disorder among JSS1 students in Orlu Education Zone I. Specifically, this study sought to:

1. Determine the effect of systematic desensitization on separation anxiety disorder among junior secondary school(JSS 1) students in Orlu Education Zone I when compared with those exposed to conventional counselling using pre-test and post- test mean score
2. Examine the effect of systematic desensitization on separation anxiety disorder of male and female J S S1 student in Orlu education zone one when compared with those exposed to conventional counselling using pre-test and post-test mean scores

Research Questions

1. What is the effect of systematic desensitization on separation anxiety disorder among junior secondary school(JSS 1) students in Orlu Education Zone I when compared with those exposed to conventional counselling using pre-test and post- test mean score?
2. What is the effect of systematic desensitization on separation anxiety disorder of male and female J S S1 student in Orlu education zone one when compared with those exposed to conventional counselling using pre-test and post-test mean scores?

Hypotheses

The study tested the following null hypotheses at 0.05 level of significant.

H₀₁:There is no significance difference on the effect of systematic desensitization on separation anxiety disorder among junior secondary school (JSS 1) students in Orlu Education Zone 1 when compared with those exposed to conventional counselling using pre- test and post- test mean score.

H₀₂:There is no significance difference on the effect of systematic desensitization on separation anxiety disorder of male and female JSS 1 students in Orlu Education Zone 1 when compared with those exposed to conventional counselling using their pre- test and post-test mean score.

METHODS

The study adopted a quasi-experimental research design. The rationale for adopting this design was that the study established cause and effect relationship between the variables and it involved intact classes. The population of the study consisted of 28,956 Junior Secondary School (JSS1) students in the 95 co-education schools in Orlu Education Zone I of Imo State. The sample for this study comprised 65 JSS1 students (25 in Systematic Desensitization Technique (STD) group. A simple random sampling technique was used to select three local government areas, out of Eight local government areas that made up the zone. The students with separation anxiety disorder were first identified using Separation Anxiety Disorder Identification Rating Scale (SADIRS). A stratified random sampling technique was used to select three schools from three local government areas that were having the highest numbers of students with separation anxiety disorder. Intact classes of the sampled schools were used for this study. School I served as experimental group I, School II served as experimental group II, while School III served as a control group. The schools were assigned randomly. Two instruments were used for data collection. The first instrument was Ten items rating scale titled "Separation Anxiety Disorder Identification Rating Scale (SADIRS)". This instrument was developed by the researcher and was used for the identification of the students with separation anxiety disorder. The rating scale has two Sections A and B. Section A contains information on the Bio data of the respondents, while section B deals with items designed to collect vital information from each respondent on the separation anxiety disorder state of the students. The rating scale was structured on a four point Likert scale of measurement. The responses are Always (A), Often (O), Sometime (S), Never (N). The scores for each statement were totalled at the end and written under the four columns against where the score was inscribed. The total scores portray the students' separation anxiety disorder. A student who scored 20 and above was considered as having separation anxiety disorder. The second instrument Separation Anxiety Disorder Questioning Rating Scale (SADQRS) served as the post-test. The instrument for pre-test was also used for post-test by first reshuffling the items. This was done in order to ensure that students did not memorise their responses in the pre-test. The Separation Anxiety Disorder Questioning Rating Scale (SADQRS) was trial tested on a single administration on a representative sample of 30 JSS 1 students (15 males and 15 females) randomly selected from two public secondary schools in Owerri Education Zone. The responses were collated to determine the internal consistency of the items of the instrument. This was done using Cronbach Alpha reliability coefficient. The value of 0.89 for SADQRS was obtained. This reliability coefficient was considered high enough for the instrument to serve as instrument for data collection. The data collected using the Separation Anxiety Disorder Rating Scale (SADIRS) administered to the students in both the experimental and control groups were analyzed by the researcher to determine the mean scores. The mean gain and mean loss scores were used to ascertain the effects of the treatments. Mean and standard deviation were employed to answer the research questions. The null hypotheses were tested using Analysis of Covariance (ANCOVA) and observed probability value (p-value) at the set probability value of 0.05.

RESULTS

Research Question One: What is the effect of systematic desensitization on separation anxiety disorder among secondary school (JSS 1) students in Orlu Education Zone I of Imo State using pre-test and post- test mean score?

Table 1: Summary Table for the Mean and Standard Deviation of Rating Scores on Separation Anxiety Disorder of Students Exposed to Systematic Desensitization Technique (SDT) and Control

Group	<i>n</i>	Pre-Test \bar{X}_{SD}		Post-Test \bar{X}_{SD}		Mean Gain/Loss
SDT	25	44.64	5.57	29.92	3.34	-14.72
Control	21	45.95	3.46	51.29	3.94	5.34

Table 1 showed that students exposed to Systematic Desensitization Technique (SDT) had a substantial decrease in their separation anxiety disorder mean scores from 44.64 (pre-test) to 29.92 (post-test). The control group's mean scores increased from 45.95 (pre-test) to 51.29 (post-test). This represents mean reduction in separation anxiety disorder of 14.72 among those treated with SDT and 5.34 increase in separation anxiety disorder among the control ground. This suggests that SDT significantly reduces separation anxiety disorder among students.

Research Question Two: What is the effect of systematic desensitization on separation anxiety disorder of male and female JSS 1 students in Orlu Education Zone when compared using their pre- test and post- test mean score?

Table 2: Mean Separation Anxiety Rating Scores of Male and Female Students exposed to Systematic Desensitization Technique (SDT)

Gender	<i>n</i>	Pre-Test \bar{X}_{SD}		Post-Test \bar{X}_{SD}		Mean Gain/Loss
Male	10	45.30	6.09	30.30	3.68	-15.00
Female	15	44.20	5.36	29.67	3.20	-14.53

Table 2 presented the mean separation anxiety rating scores of male and female students exposed to Systematic Desensitization Technique. The Table showed that both male and female students exposed to SDT experienced reductions in separation anxiety disorder. Males had a mean score decrease from 45.30 (pre-test) to 30.30 (post-test) of 15.00, while females decreased from 44.20 (pre-test) to 29.67 (post-test) which indicates a mean loss of 14.53. This implies that both genders exposed to SDT had relatively the same mean reduction in separation anxiety disorder.

TEST OF HYPOTHESES

The study tested the following null hypotheses at 0.05 level of significant

Hypothesis One: There is no significance difference on the effect of systematic desensitization on separation anxiety disorder among secondary school (JSS 1) students in Orlu Education Zone of Imo State using pre-test and post- test mean score.

Table 3: Summary of ANCOVA on the Main Effects of Systematic Desensitization on Separation Anxiety Among JSS 1 Students

Source of Variation	Sum of Squares	df	Mean Square	F	<i>p</i>	Remark
Pre_Test	490.141	1	490.141	244.173	.000	Significant
Treatment	4602.736	1	4602.736	2292.942	.000	
Gender	.083	1	.083	.041	.840	
Treatment * Gender	.610	1	.610	.304	.584	
Error	82.301	41	2.007			
Total	78193.000	46				

The ANCOVA results in Table 3 indicated a significant treatment effect, $F(1,41) = 2292.942$, $p < .000$, suggesting that SDT had a significant impact on reducing separation anxiety disorder compared to the control group. Thus, the null hypothesis was rejected. Therefore, there is significant difference in the effect of

systematic desensitization on separation anxiety disorder among secondary school (JSS 1) students in Orlu Education Zone of Imo State using pre-test and post-test mean scores.

Hypothesis Two: There is no significance difference on the effect of systematic desensitization on separation anxiety disorder of male and female JSS 1 students in Orlu Education Zone of Imo state when compared using their pre- test and post-test mean score.

Table 4: Summary ANCOVA on Mean Differences in Separation Anxiety by Treatment (Exposition to Systematic Desensitization) and Gender

<i>MS</i>	<i>df₁</i>	<i>df₂</i>	<i>F_{cal}</i>	<i>p</i>	<i>F_{Crit}</i>	<i>Remark</i>
0.083	1	41	0.041	0.840	3.92	Not Significant

The ANCOVA results in Table 4 indicated no significant difference between male and female students' responses to SDT, $F(1,41) = 0.041$, $p = .840$). Thus, the null hypothesis which states that “there is no significance difference on the effect of systematic desensitization on separation anxiety disorder of male and female JSS 1 students in Orlu Education Zone of Imo state when compared using their pre- test and post-test mean score” is, therefore, accepted. This finding indicated that SDT is equally effective for both male and female students.

DISCUSSIONS

The finding of the study in Table 1revealed that students exposed to the Systematic Desensitization Technique (SDT) showed a significant reduction in their separation anxiety disorder, whereas the control group exhibited an increase in anxiety levels. The hypothesis testing confirmed a significant treatment effect, indicating that SDT significantly reduces separation anxiety disorder compared to the control group. This finding suggested that systematic desensitization is an effective intervention for reducing separation anxiety disorder among junior secondary school students. For schools, incorporating SDT into their mental health and counselling programs could provide an evidence-based method for addressing anxiety-related issues. Students can benefit from reduced anxiety levels, leading to better academic performance and overall well-being. Counsellors and educators should consider training in SDT techniques to implement them effectively in their interventions.

This result is consistent with Satyakam, et. al. (2013), who found that systematic desensitization significantly reduced test anxiety among students. Similar findings were reported by Nash (2019), indicating the effectiveness of systematic desensitization in various contexts and reinforcing the applicability of SDT in educational settings. Additionally, Yusuf (2019) demonstrated the benefits of systematic desensitization in reducing generalized anxiety disorder, further supporting its use in managing different forms of anxiety.

The study found no significant difference in the effectiveness of SDT between male and female students, with both genders showing substantial reductions in separation anxiety disorder. The hypothesis testing supported this finding, indicating no significant gender difference in the effectiveness of SDT. This result indicates that SDT is equally effective for both male and female students, suggesting its broad applicability. For schools, this means that SDT can be universally implemented without the need for gender-specific adjustments. Students of both genders can benefit equally from SDT, ensuring that all students have access to effective anxiety reduction techniques. Counsellors and educators can confidently apply SDT across diverse student populations, promoting inclusivity in mental health interventions.

The finding of no gender difference in response to SDT was in line with studies such as Ollendick and King (1998), which reported similar outcomes across genders for anxiety treatments. This was further supported by Yusuf (2019), who found no significant gender differences in the effectiveness of systematic desensitization in their studies. This reinforces the universal applicability of SDT in educational settings to manage anxiety disorders among students of all genders.

Conclusion

This study examined the effect of systematic desensitization on separation anxiety disorder among secondary school students in Orlu Education Zone I of Imo State. The findings revealed that systematic desensitization significantly reduced separation anxiety disorder among the students which showed greater effectiveness.

These results underscore the potential of these therapeutic techniques to enhance the mental health and academic performance of students. Systematic desensitization, being more effective, should be prioritized in school counselling programs. The technique's efficacy for both male and female students indicates its broad applicability, making it a valuable tool for addressing anxiety disorders in diverse student populations.

Recommendations

Based on the findings of the study, the following were recommended:

1. Given the significant reduction in separation anxiety disorder observed in students exposed to the Systematic Desensitization Technique (SDT), it is recommended that schools in Orlu Education Zone I and beyond integrate SDT into their counselling programs. Training school counsellors and psychologists in SDT will enable them to effectively administer this technique, providing students with structured support to manage anxiety. Schools should allocate resources and time for professional development to ensure staff are well-equipped to implement SDT.
2. Since SDT was found to be equally effective for male and female students, it is recommended that schools implement this technique without gender-specific modifications. Schools should promote awareness of these techniques among all students, encouraging them to seek help regardless of gender.

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