https://journals.unizik.edu.ng/jgcs ISSN: 1596-1141

JOURNAL OF GUIDANCE AND COUNSELLING STUDIES

EXAMINING THE EFFECT OF COGNITIVE RESTRUCTURING TECHNIQUE ON SHY BEHAVIOUR AMONG JUNIOR SECONDARY SCHOOL STUDENTS IN LAPAI LOCAL GOVERNMENT AREA OF NIGER STATE, NIGERIA

MOHAMMED, Rahmat Yunusa

Department of Counselling Psychology, Faculty of Education, Ibrahim Badamasi Babangida University, Lapai, Niger State

muhammedrahmat538@gmail.com, 07038539068

Abstract

This study examined the effect of cognitive restructuring technique on shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State, Nigeria. Two objectives guided the study and two hypotheses were formulated and tested at 0.05 level of significance. Hypothesis one measured the difference in the effect of cognitive restructuring technique on shy behaviour on the basis of level of shy behaviour, while hypothesis two measured the difference in the effect of cognitive restructuring technique on shy behaviour on the basis of socio-economic background. Quasi-experimental design involving pre-test and post-test for control and experimental groups was used. The population of the study comprised of all the junior secondary school students identified with shy behaviour in Lapai Local Government Area of Niger State. A total number of seventy-four (74) students were identified with shy behaviour in two selected schools, and fifty (50) of them were purposively selected as sample size. Shy Behaviour Observational Checklist (SBOC) was used for identification of the students with shy behaviour, while Shy Personality Scale (SPS) was used for the collection of pre-test and post-test data. The data collected were analyzed using analysis of variance (ANOVA). The finding of hypothesis one revealed that there was no significant difference in the effect of cognitive restructuring technique on shy behaviour on the basis of levels of shy behaviour. The finding of hypothesis two indicated that there was no significant difference in the effect of cognitive restructuring technique on shy behaviour on the basis of socio-economic background. The researcher concluded that there was no significant difference in the effectiveness of cognitive restructuring technique in reducing shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State based on levels of shy behaviour and socio-economic background. Based on these findings, it was recommended that teachers and other school personnel in junior secondary schools in Lapai Local Government Area of Niger State should be trained on how to identify students with shy behaviour for appropriate remedial intervention by the school counsellor and school psychologists; and the school management, through the school guidance unit, should encourage sports and extra-curricular activities (such as debate, sports activities, and press clubs) in order to encourage participation by all students as a means of addressing the effects of shy behaviour.

Key Words: Effect, Cognitive Restructuring, Shy Behaviour, Junior Secondary School.

Introduction

Shyness is increasingly recognized in contemporary developmental and counselling psychology literature as a multidimensional construct that manifests across behavioural, affective and physiological levels, rather than as a single, unified trait (Poole & Schmidt, 2023). Poole and Schmidt (2023) demonstrated that while a subset of children display shyness as a stable temperamental characteristic, a much larger group experience it as a situational emotional state triggered by specific social demands, such as public speaking or performing in front of an unfamiliar audience. Similarly, Vizcarra, Hostinar and Robins (2023), in a longitudinal study spanning late childhood to adolescence, found that shyness generally declines with age, although this developmental trajectory varies considerably across individuals. This suggests that shy behaviour among junior secondary school students may respond differently to intervention depending on the level of shyness a student exhibits and the broader social context in which the student is situated.

Shyness has been conceptualized and defined in many ways. The American Psychological Association (2012) defines shyness as the "tendency to feel awkward, worried or tense during social encounters, especially with unfamiliar people". Oguzie et al. (2019) define shyness as a behaviour deficit that particularly relates to an individual's social life. It is mainly a social phenomenon which is always exhibited, experienced or expressed in a social situation, primarily due to the presence of other people. D'Arcy (2016) views shyness as an emotion that affects how an individual feels and behaves around others. Ubah and Idieune (2016) refer to shyness as a form of superfluous self-focus, an obsession with an individual's thoughts and emotions which invariably leads the individual to an undesirable action or behaviour. According to Oguzie and Nwokolo (2019), shyness is a maladaptive behaviour that makes affected individuals unable to function properly in social situations. However, for the purpose of this study, shy behaviour is defined as a physical response of the student's feeling of discomfort in expressing oneself among people.

However, there are many factors that contribute to shy behaviour (D'Arcy, 2016). For instance, shy behaviour may be caused by environmental and biological factors: environmental factors such as unsatisfactory and chaotic homes, crowded homes, child-rearing practices, or being raised by parents who are insecure or unloving, and discomfort with regard to family relationships (Oguzie & Nwokolo, 2019). Shy behaviour may also be caused by linguistic delays in childhood, which

can result in a poor personality style and play a large role in individuals developing shyness (D'Arcy, 2016). Biological factors hold the view that shyness stems from temperament or innate characteristics such as genetic predisposition (D'Arcy, 2016). Research evidence demonstrates that both genetic and environmental factors play a significant role in the development of shyness (Nikel, Oleś & Oleś, 2020).

Shy behaviour is of different categories or levels. According to Akinade (2012), shy behaviour can be categorized into limited shyness, moderate shyness, and significant shyness. Lyness (2016) also classified shy behaviour into mild shy feeling, medium shy feeling, and intense or extreme shy feeling. Lyness (2016) explains that students with mild shy feeling or low shy behaviour only feel shy for a certain period of time in a particular situation; in mild shyness, students feel shy at first, but later the shy feeling melts away as they adjust to the new situation, particularly in unfamiliar situations such as the first day in school or speaking in front of a class for the first time. Students with medium or moderate shy behaviour, in some situations, do not take advantage of social situations; for instance, they are less expressive verbally and show less interest in other people. Students with extreme shyness or high shy behaviour demonstrate difficulties with meeting people, initiating and maintaining conversations, deepening intimacy, interacting in small groups, and self-assertion, to the extent that extreme shyness can interrupt a student's ability to respond to teachers' questions in the classroom, as such students may sit throughout a class without paying attention to the lesson because they are preoccupied with the fear that the teacher might call on them to respond.

Evidence from the literature also shows that shyness is associated with the socio-economic background of the student. Bian, Chen, Li, Liu, Fu, Cui and Liu (2026) observed that shy children and adolescents in their study largely came from families of low-to-middle socio-economic status, and that the consequences of shyness for social and school adjustment varied depending on the developmental period and the resources available within the student's social environment. This suggests that socio-economic background may shape how confidently a student engages in social and academic situations, with students from more resourced backgrounds tending to be more participative and pro-active, while students from less resourced backgrounds may be more prone to withdrawal and avoidance in social and classroom settings.

Literature revealed that higher levels of shyness lead to a decreased level of happiness, poor academic achievement and performance, low self-esteem, negative self-concept, as well as social and emotional maladjustment (Nikel, Oleś & Oleś, 2020). Nikel, Oleś and Oleś (2020) found that shy children tend to record lower school achievement as reported by teachers, along with lower fluid intelligence and self-efficacy scores, partly because shy children participate less and feel more anxious when interacting with their peers in the classroom. Ubah and Idieune (2016) also observed that students with shyness are likely to withdraw from class activities such as asking or answering questions and will not participate in many academic and social growth opportunities, difficulties which negatively affect their communication skills and opportunities for collaborative learning.

The present study considered junior secondary school students because the researcher observed that shy behaviour is linked with the level of individual's development. This observation concurred with Nikel, Oleś and Oleś (2020), who found that shyness is common among school-age children and is associated with poorer school achievement and self-efficacy, effects that may vary across developmental stages. So, based on the above, the researcher found that students at junior secondary school in Lapai may experience shy behaviour differently from students at the senior secondary school level. Also, most of the previous studies on shy behaviour, such as those by Isyaku (2015), Oguzie et al. (2019), and Oguzie and Nwokolo (2019), focused on secondary school students generally as their population of study. This study therefore was necessitated, to focus on JSS students because of their level of development, to fill the existing gap.

Psychotherapy is one of the treatment options; Social Skills Training (SST) and other forms of counselling can be used as an intervention for shy people. Social skills training techniques such as assertive training, self-management, modelling, role playing/behaviour rehearsal, instruction, feedback and reinforcement techniques are used by counsellors and therapists to help clients with shyness achieve social competence (Alizadeh, 2021). It has also been found that some teachers provide positive reinforcement, in the form of verbal praise, for shy children to encourage them to participate in classroom activities. While positive reinforcement is often used to increase the likelihood of shy students repeating classroom interaction, it can sometimes bring unwanted attention to shy students and produce a negative effect (Nikel, Oleś & Oleś, 2020).

Unfortunately, previous efforts such as the use of medication, social skills training and bibliotherapy, made by therapists, researchers and other scholars to curb the problem of shyness among students, appear to have met with limited success due to their long-term treatment procedures, short-lasting results, high cost of treatment, methodological complexities and therapeutic complications (Alizadeh, 2021). Hence, the researcher selected an effective cognitive intervention measure known as cognitive restructuring technique to determine its efficacy in reducing shy behaviour among junior secondary school students. The researcher's choice of cognitive restructuring technique was based on its efficacy in managing both cognitive and behavioural problems, as noted by Ekenia (2019).

Cognitive Restructuring Technique (CRT) is a counselling intervention technique that helps people to understand the influence of their thoughts and feelings on human behaviour. According to Kathleen (2016), CRT is an intervention technique used by counsellors and other therapists to guide and teach clients how to change negative thoughts, beliefs and feelings through thought patterns. Cognitive restructuring technique is a psychotherapy based on modifying everyday thoughts and behaviours with the aim of positively influencing emotions (Anyamene & Udeagha, 2025). This technique is based on the premise that people's thoughts, feelings, physical sensations and actions are interconnected, and that negative thoughts, feelings and beliefs can lead to maladaptive behaviours. Hence, negative and unrealistic thoughts and beliefs could cause emotional distress and may result in deficit behaviours such as shyness. Parameswara, Utami and Eva (2022) therefore opine that cognitive restructuring is directed towards changing irrational and non-adaptive thoughts into rational and adaptive ones, thereby alleviating cognitive biases and distortions and developing a positive thinking pattern.

However, for the purpose of this study, cognitive restructuring technique is defined as a cognitive change method used by counsellors and other therapists to resolve clients' problems by replacing negative or irrational thoughts and beliefs with positive or rational thoughts and beliefs. It involves learning how to think differently, to change fundamental faulty thinking, and to replace it with more rational, realistic and perhaps positive thinking. The aim of this therapy is to assess the negative thoughts clients have about themselves and their view of the world around them, and to replace such thoughts with more positive and rational thoughts, beliefs, and behaviours. CRT is a structured programme that may help clients identify and replace the thoughts and beliefs that cause shy behaviour with those that promote boldness and assertiveness.

Studies have shown that gender and age are significantly correlated with the problem of shyness (Alizadeh, 2021). Gender refers to the state of being a male or female (Oguzie et al., 2019). Studies have indicated controversy on the gender difference in the effects of cognitive restructuring technique in reducing maladaptive behaviours. Oguzie and Nwokolo (2019), in their study, observed that cognitive restructuring was more effective in changing maladaptive behaviours among male participants than their female counterparts. On the contrary, Garba (2025) found that gender was not a significant factor in the effect of cognitive restructuring therapy on test anxiety among secondary school students in Gombe State, Nigeria. Hence, the present study was carried out to determine the effectiveness of cognitive restructuring technique on shy behaviour among junior secondary school students in Lapai Local Government Area, and also to examine whether this effectiveness differs according to the level of shy behaviour and the socio-economic background of the students.

Cognitive Restructuring Technique (CRT) is a psychotherapeutic process of learning to identify and dispute irrational or maladaptive thoughts, known as cognitive distortions. Cognitive behavioural therapists believe that thinking influences behaviour, and they assume that an event that happens to a person does not by itself cause stress, anxiety, depression or other disorder, but rather the way the individual thinks or feels about the event, especially if the individual thinks negatively about the event. Thus, the researcher observes that shy behaviour is associated with a negative view of self, which in turn affects academic performance. It is on this basis that this study was motivated to examine the effect of cognitive restructuring technique on shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State, Nigeria.

Statement of the Problem

It is expected that students at secondary school level, irrespective of their age, gender or socio-economic background, should command a reasonable level of sociability and be outgoing enough to adequately adjust to their social and academic environments. But it is disheartening that some secondary school students in Lapai Local Government Area of Niger State are less sociable and feel uneasy about airing their views and opinions in social gatherings. They find it difficult to participate in classroom activities, such as asking or answering questions, due to the condition of shy behaviour. Therefore, the need to help these students overcome the syndrome of shy behaviour cannot be overstressed. Several efforts have been made by previous researchers to help students overcome their shy behaviour through advice, bibliotherapy, and the application of techniques

such as social skills training, assertive training and self-management techniques, but the problem of shy behaviour persists among secondary school students. Perhaps the problem of shy behaviour may require effective counselling intervention to reduce it. For secondary school students with shy behaviour to be helped, there is a need to expose them to counselling intervention techniques and programmes that are efficient in reducing it among them. It is against this background that the present researcher used cognitive restructuring technique to determine its effectiveness in reducing the symptoms of shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State.

Objectives of the Study

The following are objectives of the study:

1. To examine the difference in the effect of Cognitive Restructuring Technique on shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State, based on levels of shy behaviour.
2. To determine the difference in the effect of Cognitive Restructuring Technique on shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State, based on socio-economic background.

Research Hypotheses

The following null hypotheses were tested at 0.05 levels of significance:

HO1: There is no significant difference in the effect of cognitive restructuring technique on shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State, based on the levels of shy behaviour.

HO2: There is no significant difference in the effect of Cognitive Restructuring Technique on shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State, based on socio-economic background.

Methodology

Quasi-experimental design involving pre-test and post-test, control and experimental groups design was used in this study. According to David and John (2017), quasi-experimental design establishes cause-and-effect relationships. Lambert (2019) indicated that quasi-experimental design involves the manipulation of one or more independent variables, but there is no random

assignment of participants to conditions. The population of this study comprised of seventy-four (74) junior secondary school (JSS II) students who were identified with shy behaviour in Lapai Local Government Area of Niger State. The students with shy behaviour were determined through the use of the Shy Behaviour Observational Checklist (SBOC) by Cheek and Buss (2014). Fifty (50) students with shy behaviour were selected and used for the study through the use of purposive sampling technique. Purposive sampling technique was used because the researchers needed to select only students with shy behaviour. On the basis of this, Muhammadu Jero Secondary School, Lapai and Government Day Secondary School, Gulu were selected and used as sampled schools. After the selection, twenty-five (25) participants were randomly assigned to the experimental group, which was exposed to cognitive restructuring technique treatment, and twenty-five (25) participants were assigned to the control group, which did not receive treatment. The selection of 25 participants for each group was in line with the opinion of Ezhumalai (2018), who maintained that for counselling session to be effective, the group membership need not be too large. Also, Cohen, Manion and Morrison (2018) emphasized that a smaller sample size is recommended and most appropriate in counselling interventions.

Shy Behaviour Observational Checklist (SBOC), for measuring attitude of shy behaviour, and Shy Personality Scale (SPS), for measuring shy behaviour, were used as instruments for collection of data in this study. Shyness Personality Scale (SPS) was adopted from Akinade (2012). The SPS was adopted from the original source because of its suitability with the locality area, and validation and reliability processes were all carried out in Nigeria. Shy Behaviour Observational Checklist (SBOC) was adopted from Isyaku (2015). To ascertain the face and construct validity of the SBOC, Isyaku (2015) reported that copies of this instrument were given to three lecturers in Educational Psychology, and Guidance and Counselling, from the Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria. After a rigorous review and technical input relating to the appropriateness of the items and clarity of the language, the experts' inputs, such as reframing some items, changing ambiguous words to simpler words, and merging some items to avoid repetition, were harmonized to form the final copy of the instrument used in the study. To ascertain the validity of the Shy Personality Scale, Akinade (2012) reported that copies of the Shy Personality Scale (SPS) were given to some experienced and distinguished Professors of Counselling Psychology to fine-tune the items in the instrument. Akinade (2012) also reported that the Shy Personality Scale (SPS) was trial-tested on different groups of people: male and female,

highly educated and not so well educated, young and old. Akinade (2012) maintained that the validators of the SPS asserted that the inventory has face and construct validity. The reliability of the SBOC was determined by Cheek and Buss (2014) through the test re-test method, and a reliability value of 0.78 was recorded. The SBOC was therefore considered appropriate for adoption in this study. The reliability of the SPS was also determined by Akinade (2012) through the test re-test method, and a reliability index of 0.79 was obtained, which was considered appropriate for use in this study. The SBOC was rated and scored as 5, 4, 3, 2 and 1 for Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree, respectively. The minimum score was 15 (1 x 15) and the maximum score was 75 (5 x 15). According to Cheek and Buss (2014), a student who scored between 36 and 75 points was regarded as having a high level of shy behaviour, while a student who scored between 21 and 35 points was regarded as having a moderate level of shy behaviour. A student with a score of 20 and below was regarded as not exhibiting characteristics of shy behaviour. The data collected in this study were analyzed using both descriptive and inferential statistics. Simple percentage, mean and standard deviation were used to analyze the demographic information of the participants. The inferential statistic of Analysis of Variance (ANOVA) was used to test the null hypotheses. The SPSS version 22 was used, and the decision levels of the hypotheses testing were at 0.05 levels of significance.

Results

Descriptive Statistics

Table 1: Mean Scores and Standard Deviations of Participants with Low, Moderate and High Levels of Shy Behaviour at Post-test

Variable	Number	Mean	Standard Deviation
Low	7	72.271	4.718
Moderate	10	70.100	4.370
High	8	74.600	4.894

Table 1 indicated that participants with a low level of shy behaviour exposed to Cognitive Restructuring Technique treatment had a mean score of 72.271 and standard deviation of 4.718; participants with a moderate level of shy behaviour had a mean score of 70.100 and standard deviation of 4.370; and participants with a high level of shy behaviour had a mean score of 74.600 and standard deviation of 4.894.

Table 2: Mean Scores and Standard Deviations of Participants from Low, Middle and High Socio-Economic Background at Post-test

Variable	Number	Mean	Standard Deviation
Low Socio-Economic Background	8	71.252	3.470
Middle Socio-Economic Background	12	76.628	3.215
High Socio-Economic Background	5	72.361	3.160

Table 2 showed that participants from a low socio-economic background exposed to Cognitive Restructuring Technique treatment had a mean score of 71.252 and standard deviation of 3.470; participants from a middle socio-economic background had a mean score of 76.628 and standard deviation of 3.215; and participants from a high socio-economic background had a mean score of 72.361 and standard deviation of 3.160.

Hypotheses Testing

In this section, two null hypotheses were tested at 0.05 levels of significance.

Hypothesis One: There is no significant difference in the effect of cognitive restructuring technique on shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State, based on levels of shy behaviour.

Table 3: Results of ANOVA on the Effect of Cognitive Restructuring Technique on Shy Behaviour among Junior Secondary School Students Based on Levels of Shy Behaviour

Variables	Sum of Squares	df	Mean Squares	F	P-value
Between Groups	9.725	2	0.336		
Within Groups	7206.804	23	20.572	0.286	0.417
Total	7216.529	25			

Not Significant at 0.05 levels

The result in Table 3 showed the results of ANOVA (F = 0.286, df = 23, p = 0.417). Since the p-value is greater than 0.05 levels of significance, the finding indicated that there is no significant difference in the effect of cognitive restructuring technique on shy behaviour among the participants with low, moderate and high levels of shy behaviour. Therefore, the null hypothesis was retained. This implies that there is no significant difference in the effect of cognitive restructuring technique on shy behaviour among students with low, moderate and high levels of shy behaviour.

Hypothesis Two: There is no significant difference in the effect of cognitive restructuring technique on shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State, based on socio-economic background.

Table 4: Results of ANOVA on the Effect of Cognitive Restructuring Technique on Shy Behaviour among Junior Secondary School Students Based on Socio-Economic Background

Variables	Sum of Squares	df	Mean Squares	F	P-value
Between Groups	7.797	2	0.213		
Within Groups	8620.680	23	22.985	0.148	0.752
Total	8628.477	25			

Not Significant at 0.05 levels

The results in Table 4 revealed F = 0.148, df = 23, p = 0.752. Since the p-value is greater than 0.05 levels of significance, it indicated that there is no significant difference in the effect of cognitive restructuring technique on shy behaviour among participants from low, middle and high socio-economic backgrounds. Hence, the null hypothesis was retained. This implies that there is no significant difference in the effect of cognitive restructuring technique on shy behaviour among participants from low, middle and high socio-economic backgrounds.

Discussion of Findings

The finding of hypothesis one revealed that there was no significant difference in the effect of cognitive restructuring technique on shy behaviour among participants with low, moderate and high levels of shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State. This finding was in line with the study outcome of Oguzie, Uba, Ezunu and Osagie-Obazee (2019), who investigated the effect of assertiveness training technique on shyness among secondary school students in Aboh-Mbaise Local Government Area of Imo State and reported that no significant difference was found in the effect of assertiveness training technique on shyness among the secondary school students based on the levels of shyness. Similarly, Anyamene and Ngwakwe (2019) investigated the effect of cognitive restructuring technique in reducing aggressive behaviour among secondary school students in Gombe Local Government Area of Gombe State and reported no significant difference in the effectiveness of cognitive restructuring technique on aggressive behaviour of the secondary school students on the basis of the types of aggressive behaviour exhibited. The finding further agreed with the study of Koki (2016), who carried out a study on the effect of sequential decision-making and cognitive

restructuring techniques on stress among female students of Colleges of Education in Kano State, and reported no significant difference in the effect of the sequential decision-making and cognitive restructuring techniques on stress among the respondents with low, moderate and high levels of stress exposed to both techniques.

On the other hand, the finding of hypothesis one disagreed with the study of Parameswara, Utami and Eva (2022), who investigated the effect of cognitive restructuring technique on the reduction of mathematics anxiety among high school students and reported a significant difference in the effect of cognitive restructuring technique among respondents with different levels of mathematics anxiety. The finding was also contrary to the report of Oguzie and Nwokolo (2019), who found a significant difference in the effect of cognitive behavioural therapy on shyness among secondary school students on the basis of levels of shyness in Aboh-Mbaise Local Government Area of Imo State.

The finding of hypothesis two showed no significant difference in the effect of cognitive restructuring technique on shy behaviour among participants from low, middle and high socio-economic backgrounds of junior secondary school students in Lapai Local Government Area of Niger State. This finding corroborates the study outcome of Basiru, Ibrahim and Shehu (2023), who carried out a study on the effect of cognitive restructuring counselling technique on the reduction of bullying behaviour among secondary school students in Sokoto metropolis, Nigeria, and found that a significant difference was not found among respondents from low, middle and high socio-economic backgrounds. Anyamene and Ngwakwe (2019) also reported that there was no significant difference in the effectiveness of cognitive restructuring technique on aggressive behaviour of secondary school students on the basis of family background. The finding also agreed with that of Oparadura (2017), who carried out a study on the effectiveness of cognitive restructuring on proneness to maladaptive behaviour among selected senior secondary school students in Imo State and reported that there was no significant difference in proneness to maladaptive behaviour among participants based on family socio-economic status.

On the contrary, the finding of hypothesis two disagreed with Mbakwe and Enwere (2022), who found a significant difference in the effect of cognitive restructuring on self-esteem among adolescents in Anambra State when compared across different family background categories,

suggesting that socio-economic circumstances may, in some contexts, meaningfully shape how strongly students respond to cognitive-based interventions.

Conclusion

On the basis of the findings of this study, the following conclusions were made: there is no significant difference in the effectiveness of cognitive restructuring technique in reducing shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State based on levels of shy behaviour; and there is no significant difference in the effectiveness of cognitive restructuring technique on shy behaviour among junior secondary school students in Lapai Local Government Area of Niger State based on socio-economic background.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Teachers and other school personnel in junior secondary schools in Lapai Local Government Area of Niger State should be trained on how to identify students with shy behaviour for appropriate remedial intervention by the school counsellor and school psychologists.
2. The school management, through the school guidance unit, should encourage sports and extra-curricular activities (such as debate, sports activities, and press clubs) in order to encourage participation by all students as a means of addressing the effects of shy behaviour.

References

Akinade, E. A. (2012). *Shyness personality scale (SPS)*. Lagos State University Press.

Alizadeh, S. (2021). The relationship between shyness and students' social anxiety using the mediating role of perceived fear of failure and stress. *Journal of Management and Perspective on Education, 3*(2), 1–24.

American Psychological Association. (2012). *Shyness*. https://www.apa.org/topics/shyness

Anyamene, A., & Ngwakwe, C. C. (2019). Effect of cognitive restructuring in reducing aggressive behaviour of secondary school students in Gombe Local Government Area of Gombe State. *Unizik Journal of Educational Research and Policy Studies, 5*(1), 1–12.

Anyamene, A. N., & Udeagha, F. U. (2025). Effect of cognitive restructuring technique on test anxiety among secondary school students in Anambra State. *Journal of Guidance and Counselling Studies, 9*(1), 58–69.

Basiru, U. A., Ibrahim, M. S. M., & Shehu, Y. T. (2023). Effect of cognitive restructuring counselling technique on reduction of bullying behaviour among secondary school students in Sokoto metropolis. *Journal of Educational Research in Developing Area, 4*(1), 50–64.

Bian, Q., Chen, X., Li, D., Liu, J., Fu, R., Cui, L., & Liu, S. (2026). Self-reported shyness and social and school adjustment in children and adolescents. *International Journal of Behavioral Development, 50*(1), 23–33.

Cheek, J. M., & Buss, L. A. (2014). *Shyness: Perspectives on research and treatment*. http://www.academics.wellesley.edu/psychology/htm

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.

David, C., & John, W. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications.

D'Arcy, L. (2016). *Shyness and shy people*. KidsHealth. http://www.kidshealth.org/en/tees/shyness.html

Ekenia, R. L. (2019). *Cognitive therapy techniques: A practitioner's guide* (2nd ed.). Guilford Press.

Ezhumalai, S. (2018). Maximizing the therapeutic effectiveness of small psychotherapy groups. *JSTOR*. http://www.jstor.org/stable

Garba, S. (2025). Effects of cognitive restructuring therapy and survey, question, read, recite, review study strategy on test anxiety among secondary school students in Gombe State, Nigeria. *Taraba International Journal of Social Sciences Research, 2*(1), 50–64.

Isyaku, Y. (2015). *Effects of modeling and token reinforcement techniques on shy behaviour among secondary school students of Kano State, Nigeria* [Unpublished doctoral dissertation]. Ahmadu Bello University.

Kathleen, A. (2016). *Applications of therapeutic principles of behaviour modification*. Career Publishers.

Koki, M. K. (2016). *Effect of sequential decision-making and cognitive restructuring techniques on stress among female students of colleges of education in Kano State, Nigeria* [Unpublished master's thesis]. Ahmadu Bello University.

Lambert, M. (2019). *Practical research methods in education*. Routledge.

Lyness, D. (2016). *Putting shyness in the spotlight*. KidsHealth. https://kidshealth.org

Mbakwe, U. F., & Enwere, C. A. (2022). Effect of cognitive restructuring on self-esteem among adolescents in Anambra State. *International Journal of Innovative Psychology & Social Development, 9*(2), 33–53.

Nikel, Ł., Oleś, M., & Oleś, P. (2020). Mediators of the relationships between shyness and school achievement and fluid intelligence in school-age children. *Educational Studies, 48*(5), 708–718.

Oguzie, A. E., & Nwokolo, C. N. (2019). Effect of cognitive behavioural therapy on shyness among secondary school students in Aboh-Mbaise local government area of Imo State. *International Journal of Management, Social Sciences, Peace and Conflict Studies, 2*(2), 1–9.

Oguzie, A. E., Uba, J. E., Ezunu, E. N., & Osagie-Obazee, G. E. (2019). Effect of assertiveness training technique on shyness among secondary school students in Imo State. *British Journal of Education, Learning and Development Psychology, 2*(3), 6–20.

Oparadura, J. O. (2017). *Effectiveness of cognitive restructuring and self-control on proneness to maladaptive behaviour among selected senior secondary school students in Imo State, Nigeria* [Unpublished thesis]. University of Lagos.

Parameswara, A. A., Utami, S. W., & Eva, N. (2022). The effectiveness of cognitive restructuring techniques to reduce mathematics anxiety in high school students. *Journal for the Mathematics Education and Teaching Practices, 3*(1), 31–43.

Poole, K. L., & Schmidt, L. A. (2023). Latent profiles of children's shyness: Behavioral, affective, and physiological components. *Child Development, 94*(4), 1068–1077.

Ubah, M. B., & Idieune, O. B. (2016). Effects of assertiveness training technique on enhancing shyness among primary school pupils in Onitsha Urban of Anambra State. *Journal of the Educational Psychologists, 10*(1), 210–216.

Vizcarra, A., Hostinar, C. E., & Robins, R. W. (2023). The development of shyness from late childhood to adolescence: A longitudinal study of Mexican-origin youth. *Social Psychological and Personality Science, 14*(1), 13–25.