

A study to assess the effectiveness of Bibliotherapy in reducing the level of Anxiety among school children in a selected school at Tirupattur District

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Abstract

Background: Anxiety is a prevalent mental health issue among school-aged children, impacting their academic performance and social interactions. Bibliotherapy, the therapeutic use of literature, has emerged as a promising intervention to manage and reduce anxiety in children.

Objective: This study aims to assess the effectiveness of bibliotherapy in reducing anxiety levels among school children in a selected school in Tirupattur District.

Methodology: A quantitative evaluative approach with a pre-test and post-test design was employed. The study involved 60 school children aged 6-12 years. Anxiety levels were measured using the Modified Spence Children's Anxiety Scale before and after the bibliotherapy intervention. Bibliotherapy sessions were conducted for 20 minutes twice a day for two days.

Results: Pre-test results indicated that 66.7% of participants had severe anxiety, and 33.3% had moderate anxiety, with none displaying mild anxiety. Post-intervention, 88.3% of children exhibited mild anxiety, 11.7% moderate anxiety, and none severe anxiety. Statistical analysis revealed a significant reduction in anxiety levels, with the mean pre-test score of 15.1 (SD=3.33) improving to a post-test mean score of 23.1 (SD=2.02), with a highly significant t-value of 28.25 ($p < 0.05$).

Conclusion: The findings demonstrate that bibliotherapy is an effective, non-invasive intervention for managing anxiety in school children. The study supports incorporating bibliotherapy into school curricula and counseling programs to enhance children's emotional well-being and resilience.

Keywords: Bibliotherapy, Anxiety, School children, Mental health, Intervention effectiveness

1. Introduction

Anxiety is a prevalent mental health issue among school-aged children worldwide, including India, manifesting in various forms such as generalized anxiety disorder, social anxiety, and test anxiety.[1,2] These conditions significantly impact children's academic performance, social interactions, and overall well-being.[2] Bibliotherapy, the therapeutic use of literature, has emerged as a promising intervention to manage and reduce anxiety in children. This study investigates the effectiveness of bibliotherapy in mitigating anxiety levels among school children in a selected school in Tirupattur District.[3,4]

Globally, anxiety disorders rank among the most common psychiatric conditions affecting children and adolescents. In India, the prevalence of anxiety disorders among adolescents varies significantly, with estimates ranging from 16% to 34.5%, depending on the population and assessment methods employed.[4,5] For instance, during the COVID-19 pandemic, a study in the Kashmir Valley reported an anxiety prevalence of approximately 20% among adolescents, with a higher incidence in females compared to males.[6,7] Another systematic review found a pooled prevalence of anxiety disorders among Indian adolescents at around 29%, underscoring the widespread nature of this issue.[8]

Anxiety in school children leads to several adverse outcomes, impairing cognitive function, academic performance, and social development.[9] Children suffering from anxiety often face concentration difficulties, increased absenteeism, and avoidance of social and academic activities, highlighting the necessity for effective interventions to manage anxiety and support children's mental health.[10] Bibliotherapy involves utilizing books and other reading materials to help individuals understand and cope with mental health issues. This approach offers a safe and structured way for children to explore their emotions, gain insights, and develop coping strategies. By engaging with stories and characters, children can identify with similar experiences, learn problem-solving skills, and find comfort and reassurance.[11]

Studies have shown that bibliotherapy can be effective in various settings. For example, it has been used successfully to reduce anxiety in hospitalized children, help children with intellectual disabilities improve social and communication skills, and assist children dealing with bullying.[3,12] Meta-analyses indicate that bibliotherapy can be as effective as traditional face-to-face therapy for treating anxiety and depression in both children and adults. This suggests that bibliotherapy is a viable treatment option, particularly for individuals who may not have access to or prefer not to pursue traditional forms of therapy.[13]

The primary objective of this study is to evaluate the efficacy of bibliotherapy in reducing anxiety levels among school children in a selected school in Tirupattur District. The study employs a pre-test and post-test design to measure changes in anxiety levels following the bibliotherapy intervention. The anticipated findings are expected to contribute significantly to the growing body of evidence supporting bibliotherapy as a non-invasive, cost-effective method for managing anxiety in children. This study is particularly significant as it addresses a critical mental health issue affecting a vulnerable population. Given the increasing prevalence of anxiety among school children, there is an urgent need for accessible and effective interventions. Bibliotherapy presents a promising approach

that can be easily implemented in school settings, providing children with the necessary support to manage their anxiety and improve their overall well-being.[14]

Anxiety is a prevalent issue among school children in India, with far-reaching implications for their academic and social development. This study aims to explore the potential of bibliotherapy as a therapeutic intervention to reduce anxiety levels in children, offering a novel approach to supporting mental health in educational settings. The results of this study could pave the way for broader implementation of bibliotherapy in schools, contributing to better mental health outcomes for children. By addressing the mental health needs of children through interventions like bibliotherapy, educators, parents, and mental health professionals can collaboratively create a supportive environment that fosters resilience and well-being in children.

2. METHODOLOGY:

Research Design

This study employed a quantitative evaluative approach to measure the effectiveness of bibliotherapy in reducing anxiety levels among school children. A pre-experimental group pre-test, post-test design was chosen to assess the anxiety levels before and after the intervention within a single group of participants. Specifically, the study involved an initial measurement of anxiety levels (pre-test), followed by the bibliotherapy sessions (intervention), and a subsequent measurement of anxiety levels (post-test) using the Modified Spence Children's Anxiety Scale.[15,16] This design was selected to allow for a direct comparison of anxiety levels before and after the intervention, thereby providing a clear measure of the intervention's effectiveness.

Research Setting

The research was conducted at Sri Narayani Vidhyalaya Matriculation School, located in Tirupattur District. This setting was chosen for its controlled environment, which was conducive to implementing the bibliotherapy intervention consistently and effectively. The school provided a familiar and stable environment for the children, which helped in reducing external variables that could affect the anxiety levels being measured.

Variables Under Study

The variables under study included the dependent variable, which was the level of anxiety among school children, and the independent variable, which was the bibliotherapy intervention. The dependent variable was operationalized as the anxiety levels measured using the Modified Spence Children's Anxiety Scale, while the independent variable was the implementation of bibliotherapy sessions.[16]

Population and Sample

The target population for this study comprised school children aged 6-12 years. The accessible population included children studying at Sri Narayani Vidhyalaya Matriculation School. From this population, a total sample size of 60 school children was selected using non-probability convenience sampling. This sampling method was chosen due to the ease of access to the participants and the willingness of the school to participate in the study. The sample included both boys and girls who were able to understand English and Tamil,

ensuring that the bibliotherapy sessions were comprehensible and engaging for all participants.

Inclusion and Exclusion Criteria

Inclusion criteria were set to ensure that the sample was representative of the population of interest and that the intervention could be implemented effectively. The criteria included children aged 6-12 years, both boys and girls, and children able to understand English and Tamil. Exclusion criteria were also established to avoid potential confounding variables. Children previously exposed to similar studies, those with mental retardation, and unwilling participants were excluded from the study. This helped ensure that the results would be attributable to the bibliotherapy intervention and not influenced by prior exposure or cognitive impairments.

Selection and Development of Tools

The selection and development of tools involved reviewing relevant literature, consulting with experts, and conducting a pilot study. The tools used in this study comprised two sections. Section A included demographic data, such as age, gender, class, parental occupation, play activities, and behavior. Section B consisted of a checklist to assess children's anxiety levels using the Modified Spence Children's Anxiety Scale. The scoring system for the anxiety scale categorized anxiety levels as mild (0-10), moderate (11-20), and severe (21-30). This categorization allowed for a nuanced understanding of the participants' anxiety levels and the effectiveness of the intervention.

Validity and Reliability of the Tool

The validity of the tools was ensured through expert review and feedback. Experts in child psychology and educational research reviewed the tools to ensure they accurately measured anxiety levels and were appropriate for the target age group. Reliability was established using Karl Pearson's Correlation Coefficient, with a coefficient of $r = 0.9$, indicating high reliability. This high reliability suggested that the tools would produce consistent results across different administrations.

Pilot Study

A pilot study was conducted with 10 students to test the feasibility of the methodology and the tools. The pilot study aimed to identify any potential issues with the research design, tools, or implementation process. The results of the pilot study confirmed that the methodology was appropriate for the main study and that the tools were effective in measuring anxiety levels.

Procedure for Data Collection

The procedure for data collection involved several steps. Initially, a pre-test was conducted to assess the initial anxiety levels of the participants using the checklist. This provided a baseline measurement for comparison. Following the pre-test, bibliotherapy sessions were conducted for 20 minutes, twice a day, for two days. The bibliotherapy involved reading selected books to the children, which were chosen to be engaging and anxiety-reducing. After the intervention, a post-test was conducted to reassess the anxiety levels of the participants using the same checklist. This post-test measurement allowed for a direct comparison with the pre-test results to evaluate the effectiveness of the bibliotherapy intervention.

Ethical Considerations

Ethical considerations were paramount throughout the study. Approval was obtained from the school principal and the dissertation committee under the approval number JKKNSINAR/300221525001, ensuring that the study met ethical standards. Informed consent was obtained from the participants and their parents, making sure they were fully aware of the study's purpose and procedures. Confidentiality was maintained by anonymizing the data, and participants were assured that they could withdraw from the study at any time without any negative consequences. These ethical considerations ensured that the study was conducted responsibly and ethically, respecting the rights and well-being of the participants.

Plan for Data Analysis

Data analysis involved both descriptive and inferential statistics. Descriptive statistics were used to describe the demographic data and anxiety levels, providing a detailed overview of the sample characteristics and initial anxiety levels. Inferential statistics, including paired t-tests and chi-square tests, were used to evaluate the effectiveness of bibliotherapy and the association between anxiety levels and demographic variables. The paired t-test was employed to compare pre-test and post-test anxiety levels, while chi-square tests were used to examine associations between demographic variables and changes in anxiety levels. This comprehensive data analysis plan ensured that the study's findings were robust and statistically significant.

3. RESULTS:

This section presents the detailed findings of the study conducted to assess the effectiveness of bibliotherapy in reducing anxiety levels among school children in a selected school in Tirupattur District. The data analysis includes demographic characteristics of the participants, pre-test and post-test anxiety levels, and the statistical significance of the findings.

Demographic Characteristics of Participants

The study included 60 school children aged 6-12 years. Understanding the demographic characteristics of the participants is essential for interpreting the study results and ensuring the sample represents the broader population. The demographic variables considered in this study were age, gender, birth order, and type of family.

Table 1: Demographic Characteristics of the Participants (N=60)

Demographic Variables	Frequency (f)	Percentage (%)
Age in years		
6 and 7 years	10	16.6
8 and 9 years	26	43.4
10 and 11 years	15	25.0
12 years	9	15.0
Gender		
Boys	33	55.0
Girls	27	45.0
Birth Order		
First	43	71.6

Second	13	21.7
Others	4	6.7
Type of Family		
Nuclear family	40	66.7
Joint family	17	28.3
Extended Family	3	5.0

Table 1 shows the distribution of participants across different age groups, with the majority (43.4%) being 8-9 years old. Boys constituted 55% of the sample, while girls made up 45%. Most participants were first-born children (71.6%), and the majority came from nuclear families (66.7%).

Anxiety Levels Before and After Bibliotherapy

The primary aim of this study was to evaluate the effectiveness of bibliotherapy in reducing anxiety levels among school children. Anxiety levels were measured using the Modified Spence Children’s Anxiety Scale before (pre-test) and after (post-test) the bibliotherapy intervention.

Table 2: Pre-test and Post-test Anxiety Levels among School Children (N=60)

Level of Anxiety	Pre-test Frequency (f)	Pre-test Percentage (%)	Post-test Frequency (f)	Post-test Percentage (%)
Mild	0	0%	53	88.3%
Moderate	20	33.3%	7	11.7%
Severe	40	66.7%	0	0%

Table 2 highlights a significant reduction in anxiety levels among the participants following the bibliotherapy intervention. In the pre-test, 66.7% of the children had severe anxiety, and 33.3% had moderate anxiety, with none classified as having mild anxiety. However, the post-test results revealed a substantial shift, with 88.3% of children exhibiting mild anxiety, 11.7% moderate anxiety, and none having severe anxiety. This dramatic change indicates the effectiveness of bibliotherapy in alleviating anxiety.

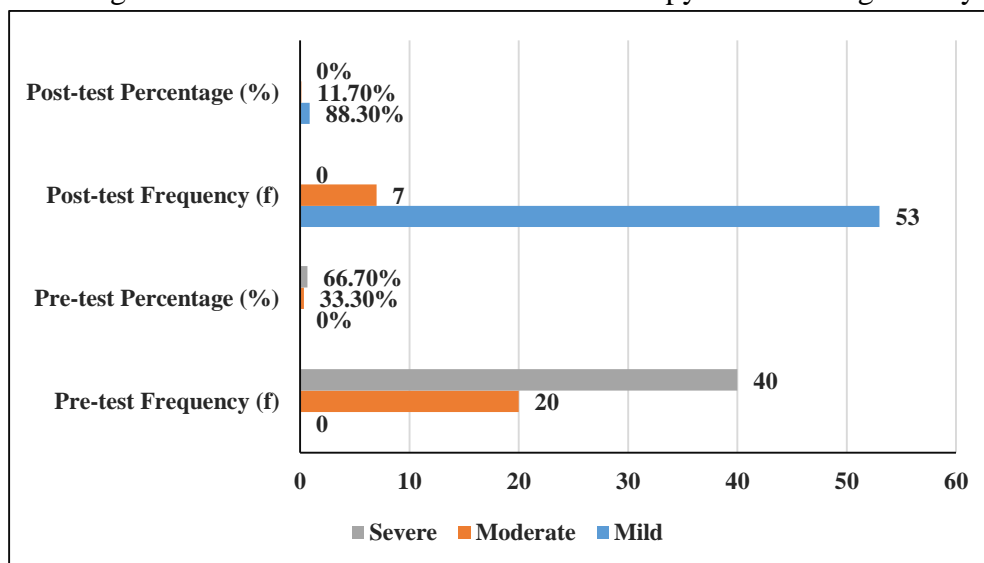


Figure 1 visually represents the change in anxiety levels from pre-test to post-test. The graph clearly shows the reduction in moderate and severe anxiety levels and the increase in mild anxiety levels after the bibliotherapy intervention. This visual comparison

underscores the significant impact of bibliotherapy on reducing anxiety among school children.

Statistical Analysis

To quantify the effectiveness of bibliotherapy, statistical analyses were conducted to compare the pre-test and post-test scores. The mean pre-test score was 15.1 with a standard deviation of 3.33, indicating moderate to severe anxiety levels. In contrast, the mean post-test score was 23.1 with a standard deviation of 2.02, reflecting a significant reduction in anxiety.

The mean difference between the pre-test and post-test scores was 10.64, with the post-test scores showing marked improvement. The obtained 't' value was 28.25, which was highly significant at $p < 0.05$ level. These results confirm that the bibliotherapy intervention was effective in significantly reducing anxiety levels among the school children.

Table 3: Mean and Standard Deviation of Pre-test and Post-test Scores

Test	Mean	Standard Deviation
Pre-test	15.1	3.33
Post-test	23.1	2.02

Table 3 summarizes the mean and standard deviation of the pre-test and post-test anxiety scores. The significant increase in the mean score from pre-test to post-test illustrates the positive effect of bibliotherapy in reducing anxiety.

4. DISCUSSION:

The present study was conducted to evaluate the effectiveness of bibliotherapy in reducing the level of anxiety among school children in a selected school in Tirupattur District. To achieve this objective, a quantitative evaluative approach and a pre-experimental design were employed. The study involved a pre-test and post-test assessment of anxiety levels using the Modified Spence Children's Anxiety Scale, with a bibliotherapy intervention provided in between. Data were collected from 60 school children and analyzed using both descriptive and inferential statistics.

The results indicated a significant reduction in anxiety levels among the participants following the bibliotherapy intervention. In the pre-test, 66.7% of the children exhibited severe anxiety, and 33.3% exhibited moderate anxiety, with none showing mild anxiety. Post-test results, however, showed a marked improvement, with 88.3% of children exhibiting mild anxiety, 11.7% moderate anxiety, and none with severe anxiety. This shift suggests that bibliotherapy was highly effective in alleviating anxiety symptoms among the school children. The statistical analysis further confirmed these findings. The mean pre-test score was 15.1 with a standard deviation of 3.33, while the mean post-test score was 23.1 with a standard deviation of 2.02. The mean difference between the pre-test and post-test scores was 10.64. The obtained t-value was 28.25, which was highly significant at $p < 0.05$ level. These results support the hypothesis that bibliotherapy significantly reduces anxiety levels in school children.

The findings of this study are consistent with previous research on the effectiveness of bibliotherapy in managing anxiety and related conditions. For instance, Anabarasu Muthusamy et al. (2022) conducted an analytical cross-sectional study to assess anxiety disorders among students in South India and found that bibliotherapy could be a beneficial tool in managing anxiety disorders among school children.[17] Similarly, Laura Jensen (2020) explored the impact of bibliotherapeutic interventions on students experiencing grief, loss, and trauma, concluding that bibliotherapy helped students communicate their experiences and develop coping skills.[18] Another study by Samantha Taylor et al. (2020) assessed whether children's literature targeting anxiety and attachment issues had any effect on preschoolers.[19] Although the study did not find direct evidence for the treatment's role in changing anxiety levels, it highlighted the potential of bibliotherapy when combined with larger sample sizes and more extensive interventions.

The results of the present study align with those of previous studies that have demonstrated the effectiveness of bibliotherapy. For example, Mohini Gupta et al. (2023) conducted a quasi-experimental study to evaluate bibliotherapy's impact on self-esteem among adolescents and found significant improvements in post-test scores compared to pre-test scores.[20] Additionally, studies such as those by Paul Montgomery et al. (2019) systematically reviewed creative bibliotherapy's effectiveness for internalizing behaviors like anxiety, concluding that bibliotherapy has small to moderate positive effects.[21]

The findings of this study have significant implications for educational and clinical practices. Bibliotherapy can be incorporated into school curricula and counseling programs as a non-invasive and accessible method to help children manage anxiety. It provides an effective tool for educators and mental health professionals to support children's emotional well-being and promote healthy coping mechanisms. Moreover, the study highlights the importance of using validated tools and structured interventions to ensure the reliability and efficacy of bibliotherapy. Additionally, bibliotherapy can be a cost-effective and easily implementable intervention in schools, particularly in settings with limited access to mental health professionals. By incorporating bibliotherapy into routine educational practices, schools can create a supportive environment that fosters emotional resilience and mental health among students. Training teachers and school counselors in bibliotherapy techniques can further enhance the program's effectiveness and sustainability.

5. CONCLUSION:

The study conducted to evaluate the effectiveness of bibliotherapy in reducing anxiety levels among 60 school children in a selected school in Tirupattur District revealed significant improvements in the children's anxiety levels. Pre-test assessments indicated that 66.7% of the children experienced severe anxiety and 33.3% experienced moderate anxiety. However, following the bibliotherapy intervention, post-test results showed a dramatic shift, with 88.3% of the children exhibiting mild anxiety, 11.7% moderate anxiety, and none with severe anxiety.

This substantial reduction in anxiety levels was supported by statistical analysis, which revealed a mean pre-test score of 15.1 (SD = 3.33) and a mean post-test score of 23.1 (SD = 2.02), with a mean difference of 10.64 and a highly significant t-value of 28.25 ($p < 0.05$). These findings strongly confirm that bibliotherapy is a highly effective intervention for reducing anxiety in school children, supporting its inclusion in educational and clinical settings as a non-invasive, cost-effective method to enhance children's emotional well-being and resilience. The significant reduction in anxiety symptoms post-intervention underscores the potential of bibliotherapy as a valuable tool for educators and mental health professionals aiming to support the mental health of school-aged children.

ABBREVIATIONS:

- ANX - Anxiety
- GAD - Generalized Anxiety Disorder
- SAD - Social Anxiety Disorder
- TANX - Test Anxiety
- COVID-19 - Coronavirus Disease 2019
- Spence Children's Anxiety Scale - SCAS
- PT - Pre-test
- PoT - Post-test

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