



## EFFECT OF AUTOGENIC TRAINING ON BULLYING-INDUCED ANXIETY IN CHILDREN

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### Abstract

**Background:** Bullying remains a common issue in character education at Islamic boarding schools, often manifesting in verbal and physical forms. Such experiences can cause significant anxiety in victims. One therapeutic option to address this is autogenic training, a relaxation technique aimed at reducing anxiety levels. **Purpose:** To determine the effect of autogenic training on reducing anxiety caused by bullying among students at Al-Ukhuwah Islamic Boarding School Sukoharjo, Central Java, Indonesia. **Methods:** This study employed a pre-experimental one-group pretest-posttest design involving 109 female students in grade VII, selected through total sampling. Participants completed the Olweus Bully Victim Questionnaire (OBVQ) and the Depression Anxiety Stress Scale (DASS-42) before the intervention. The autogenic training was conducted in 15-minute sessions, three times over three weeks. After the intervention, participants retaken the DASS-42. Data were analyzed using the Wilcoxon test. **Results:** The Wilcoxon test showed a significant reduction in anxiety levels after autogenic training ( $p = 0.001$ ). Before the intervention, most participants experienced severe to very severe anxiety; after the intervention, anxiety levels shifted to moderate and severe. **Conclusion:** Autogenic training effectively reduces anxiety among students who experience bullying. It is recommended as a supportive method to address students' mental health concerns in educational settings.

**Keywords:** anxiety; autogenic training; bullying.

### INTRODUCTION

Bullying is a critical challenge in educational environments that affects students' psychological, emotional, and physical well-being. According to Bronfenbrenner's Ecological Systems Theory, a child's development is influenced by nested systems, especially the microsystem of schools where peer interactions occur. Disruptive experiences such as bullying within this system can lead to developmental and emotional difficulties. (Urie Bronfenbrenner, 1979)

Bullying is a persistent issue in educational settings worldwide, including in Indonesia, and has been recognized as a major threat to student well-being.

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According to the Programme for International Student Assessment (PISA) in 2018, 41% of Indonesian students reported experiencing bullying, making Indonesia the country with the 5th highest prevalence out of 78 countries surveyed.(OECD, 2019). Data from the Indonesian Child Protection Commission (KPAI) between 2011 and 2019 further revealed that 574 boys and 425 girls had been victims of bullying at school. (Kementrian Pemberdayaan Perempuan Dan Perlindungan Anak, 2022) This phenomenon is also prevalent in Islamic boarding schools (pesantren), where both verbal and physical forms of bullying—such as name-calling, cursing, hitting, and kicking—are frequently reported. (Nashiruddin et al., 2019).

Bullying is not a trivial matter. From a psychological perspective, repeated exposure to bullying can lead to chronic stress and anxiety. Bandura's Social Learning Theory suggests that aggressive behaviors can be learned and perpetuated in environments where such behaviors are normalized. Victims of bullying may experience emotional dysregulation, low self-esteem, and persistent fear, all of which contribute to heightened anxiety. (Khoirunnisa et al., 2018). Prolonged anxiety, in turn, activates the hypothalamic-pituitary-adrenal (HPA) axis, leading to physiological consequences such as increased cortisol levels and a suppressed immune response, thereby affecting overall health (Gumantan et al., 2020).

Addressing anxiety caused by bullying requires interventions that target both the psychological and physiological dimensions of distress. One such intervention is autogenic training, a relaxation technique Johannes Schultz developed based on self-regulation and autosuggestion principles. Rooted in cognitive-behavioural and psychosomatic theory, autogenic training involves repetitive verbal cues that induce a state of calmness and relaxation. This technique has been proven effective in alleviating anxiety and stress in various populations. (Agusrianto et al., 2021). Providing autogenic training is a therapy that is quite effective in reducing the level of anxiety experienced by patients in various conditions. (Prasasti et al., 2021).

Given the increasing number of bullying incidents in Islamic boarding schools and their psychological impact on students, this study aims to examine the

effectiveness of autogenic training in reducing anxiety among students who have experienced bullying at the Al-Ukhuwah Islamic Boarding School.

## METHOD

This study used a pre-experimental design with a one-group pre-test and post-test method, conducted without a control or comparison group. The population included all seventh grade (Class VII) female students at Al-Ukhuwah Islamic Boarding School, Sukoharjo, Central Java, Indonesia. A total of 109 students participated, selected through total sampling.

The inclusion criteria were:

1. Students enrolled in Class VII at Al-Ukhuwah Islamic Boarding School, and
2. Students who had experienced bullying during their stay at the school.

To identify students who experienced bullying, researchers used the Olweus Bully/Victim Questionnaire (OBVQ). This tool is designed to assess both direct bullying (e.g., physical and verbal aggression) and indirect bullying (e.g., social exclusion). Students completed the OBVQ and the Depression Anxiety Stress Scale 42 (DASS-42) as pre-tests. Each questionnaire required approximately 15 to 20 minutes to complete.

Following the pre-test, participants received the autogenic training intervention. The autogenic training sessions were delivered thrice over three weeks, each lasting 15 minutes. The intervention was conducted in a calm, quiet room, guided by a trained facilitator (nurse or psychologist). Participants were instructed to sit comfortably, close their eyes, and follow a series of standardized verbal cues focusing on heaviness and warmth in different parts of the body, breathing regulation, and calm imagery. These cues were designed to induce a relaxation response and reduce physiological anxiety symptoms.

After the three-week intervention period, participants were asked to complete the DASS-42 questionnaire again as a post-test, with a similar completion time of 15 to 20 minutes. The study obtained ethical approval from the Health Research Ethics Committee of RSUD Dr. Moewardi Hospital, with the approval number No.800/V/HERC/2023. All participants and their guardians provided informed consent prior to their involvement in the study.

The OBVQ was developed by Dan Olweus to measure students' experiences with bullying, both as victims and perpetrators. This study focused on the victim section, which includes 22 items: 14 items on direct bullying and 8 on indirect bullying. According to a previous study in 2016, the validity index of OBVQ ranged from 0.340 to 0.637 at  $p > 0.05$ , and the reliability was acceptable with a Cronbach's alpha of 0.85. The Indonesian version used in this study had been translated and validated in previous local studies with a similar adolescent population.

The DASS-42 was developed by Lovibond and Lovibond (1995) to assess symptoms of depression, anxiety, and stress. It consists of 42 items, with 14 items for each emotional state. The instrument had been previously translated and validated in Indonesian with acceptable psychometric properties. The validity was assessed using a degree of freedom (df) of 28, and the Cronbach's alpha for the Indonesian version in prior studies exceeded 0.85, indicating high reliability.

The data were analyzed using bivariate analysis with the Wilcoxon signed-rank test, as the data distribution did not meet parametric assumptions. The test compared pre-test and post-test anxiety scores to determine the significance of change following the autogenic training intervention. A  $p\text{-value} < 0.05$  was considered statistically significant. Data analysis was performed using SPSS version 25.

## RESULT AND DISCUSSION

Table 1. Distribution of Anxiety Levels Among Grade 7 Female Students at Al-Ukhuwah Islamic Boarding School Before and After Autogenic Training Intervention (n = 109)

Anxiety Level	Pre-Test n (%)	Post-Test n (%)
Normal	1 (0.9%)	16 (14.7%)
Mild	12 (11.0%)	10 (9.2%)
Moderate	25 (22.9%)	26 (23.9%)
Severe	36 (33.0%)	44 (40.4%)
Very Severe	35 (32.1%)	13 (11.9%)

Before the intervention, most participants experienced severe and very severe anxiety because of bullying. Following the autogenic training intervention, anxiety levels shifted toward moderate and severe, with a notable increase in the

number of students achieving normal anxiety levels. This suggests a reduction in the severity of anxiety symptoms. Action *bullying*, which is done continuously, causes severe anxiety that can lead to suicide. This research is in line with (Mita et al., 2020) This states that bullying at school causes anxiety in children, so that children do not want to go to school and feel they are useless. This research is also in line with research by (Raharjo & Aktifah, 2021) which states that before the victim's bullying was carried out, the victim experienced severe levels of anxiety, and after providing intervention, the anxiety level decreased to moderate. This research is also in line with (Hartini et al., 2021) which shows that there is a difference in anxiety scores from high to medium levels, with the difference in scores seen in the output of pretest and posttest anxiety in students being  $71.15 > 62.65$ . This research is not in line with what (Kristika pupung, 2021) did, which mentioned anxiety as a result of bullying. 18 students experienced the mildest levels of anxiety, with a percentage of 72%. The difference in the results of this study was due to differences in the characteristics of the educational level of the respondents, elementary school children in grades 4 and 5.

Table 2. Comparison of Mean Anxiety Scores Before and After Autogenic Training Intervention Among Grade 7 Students (n = 109)

Measure	Mean	Min	Max	SD	p-value
Pre-Test	2.84	0	4	1.03	
Post-Test	2.26	0	4	1.23	<b>0.001*</b>

\*\*\*P value < 0.001 = significant, processed using SPSS with the Wilcoxon test matched-signed *rank*

The research results showed that there was an influence autogenic *training* against the anxiety of teenagers who experience bullying before and after the intervention was given, this was proven by the difference in scores between the two groups obtained *n pre-test post-test* value is obtained *p*  $0.001 < 0.05$ . This is in line with research conducted by (Rachmaningdiah & Jannah, 2016) that there was a decrease in anxiety due to autogenic *training* in badminton athletes can be seen from the average results obtained by the experimental group at that time pretest 43 to 34.67 at the time post-test, while the control group had an average score when pretest by 43 and when posttest amounting to 43.33. This is also in

line with research conducted by (Atmojo, 2023) which shows that there is a difference in reducing anxiety after doing autogenic *training* with the results of statistical tests of differences in respondents' anxiety levels (p-value 0.000). This research is not in line with research conducted by (Sari et al., 2019) which states that therapy autogenic *training* did not have a significant impact on reducing anxiety with the results of statistical tests obtained p value = (0.463). This happened because the respondents used were over 50 years old.

This study has several limitations. First, it used a pre-experimental one-group design without a control group, which limits the ability to infer causality with certainty. Second, the study focused exclusively on female students from one grade level at a single boarding school, restricting the generalizability of findings to other populations, such as males, other age groups, or different educational settings. Third, although the OBVQ and DASS-42 questionnaires were previously validated in Indonesia, the self-reported nature of these tools may introduce bias, such as underreporting due to fear or stigma. Lastly, the duration and frequency of the autogenic training (only 3 sessions in 3 weeks) may limit the long-term effectiveness of the intervention.

## CONCLUSION AND SUGGESTION

This study demonstrates that autogenic training is effective in reducing anxiety levels among Grade 7 female students who experienced bullying at Al-Ukhuwah Islamic Boarding School, Sukoharjo. A significant reduction in anxiety scores was observed following a structured intervention consisting of three autogenic training sessions over three weeks. Before the intervention, most participants exhibited anxiety levels categorized as severe and very severe. Post-intervention assessments indicated a shift toward moderate and mild anxiety levels, suggesting that autogenic training may serve as a practical and non-pharmacological method to address bullying-induced anxiety among adolescents in educational settings.

Considering these findings, it is recommended that school administrators and educational stakeholders incorporate autogenic training into school-based



mental health and counseling programs, particularly in institutions where students are vulnerable to bullying. Trained school nurses, counselors, or psychologists can facilitate these sessions as part of regular psychoeducation or relaxation-based interventions.

Additionally, healthcare professionals, especially those working in adolescent and school health services, are encouraged to utilize autogenic training as a supportive intervention to promote emotional regulation and resilience in youth experiencing psychological distress. Training workshops for educators and healthcare staff can further support the effective implementation of this technique.

Future studies should consider employing randomized controlled trial (RCT) designs with larger, more diverse populations and extended intervention periods to better assess the long-term efficacy and generalizability of autogenic training. Investigations into the integration of autogenic techniques with other psychosocial interventions may also yield valuable insights into holistic adolescent mental health care.

## **DECLARATION**

### **Conflict of Interest**

The authors declare no potential conflict of interest to the research, authorship, and/or publication of this article.

### **Authors' Contributions**

All authors contributed significantly to the work reported in this manuscript. SAM, NBA, and GDP conceptualized and designed the study. SAM conducted data collection. SAM, RGHN, and HN performed data analysis. SAM and GDP drafted the manuscript. All authors reviewed and approved the final version of the manuscript.

### **Ethical Approval**

This study received ethical approval from the Health Research Ethics Committee of RSUD Dr. Moewardi, Surakarta, Central Java, Indonesia, with approval number

No. 800/V/HERC/2023. Written informed consent was obtained from all participants and their guardians before participation.

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### **Data Availability**

The datasets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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