



The Effectiveness of Adlerian Counseling with Sandtray Therapy Technique to Reduce Anxiety

Wayan Eka Paramartha^{1*}, I Ketut Dharsana², Ni Ketut Suarni³

^{1,2,3}Universitas Pendidikan Ganesha

*Email: eka.paramartha@undiksha.ac.id

Abstract

This study aims to examine the effectiveness of Adlerian counseling integrated with Sandtray Therapy in reducing anxiety levels among final-year university students. A quasi-experimental design with a one-group pretest-posttest model was employed. The participants consisted of 10 final-year students who exhibited moderate to high levels of anxiety as measured by an Adlerian-based anxiety scale. The instrument was validated using Spearman's rank correlation and demonstrated satisfactory reliability based on Cronbach's Alpha coefficient. Data were analyzed using the Wilcoxon Signed-Rank Test to compare anxiety scores before and after the intervention. The results showed a significant reduction in anxiety levels, with the average score decreasing from 73.0 (pretest) to 55.1 (posttest), and an average reduction of 17.9 points. Statistical analysis indicated a significant difference between pretest and posttest scores ($Z = -2.803$, $p = 0.005$). These findings indicate that Adlerian counseling integrated with Sandtray Therapy is effective in reducing anxiety among final-year students. This study suggests using this approach as a practical intervention strategy in university counseling services to help students manage anxiety and improve psychological well-being.

Keywords: adlerian counseling, anxiety, sandtray therapy

INTRODUCTION

University students often face various psychological pressures that can affect their academic performance and overall well-being (Rahmawati et al., 2025). The pressure to complete final assignments, prepare for entry into the workforce, and worries about the future cause many students to experience relatively high levels of anxiety (Ariska et al., 2024). Anxiety is an emotional response to perceived threatening situations, characterised by excessive feelings of worry, tension, and fear (Corbett et al., 2021). Symptoms of anxiety often manifest physically, such as heart palpitations, sleep disturbances, sweating,

and decreased concentration (Berutu & Mutiawati, 2023). If not properly managed, anxiety can lead to a decline in academic achievement, mental health problems, and social withdrawal (Jayanti & Adim, 2024).

Anxiety among university students, particularly those in their final semesters, is a complex phenomenon involving academic pressure, social demands, and career uncertainty (Keane et al., 2021). Common efforts such as self-coping strategies and self-diagnosis are often ineffective in reducing anxiety sustainably. Moreover, the habit of seeking self-help solutions through the internet without professional guidance can exacerbate psychological distress and increase stress levels (Febri, 2024). This condition highlights the need for a more structured, reflective, and therapeutic counselling intervention. One potential approach is integrating Sandtray Therapy and Adlerian Counselling, which can facilitate symbolic emotional expression while strengthening an individual's sense of meaning in life and social connectedness (Homeyer & Sweeney, 2022).

Adlerian Counselling emphasises belongingness, courage, and the search for meaning in life as fundamental to psychological well-being (Ashori & Shamsi, 2023; Corey, 2023). This approach helps individuals understand their feelings of inferiority and guides them toward achieving a more meaningful life purpose (Erbaş, 2023; Oetari et al., 2024). Meanwhile, Sandtray Therapy is an expressive therapeutic technique that enables individuals to externalise their emotional experiences through the use of sand and symbolic miniatures (Parsons, 2023; Sweeney, 2021). Research has shown that this therapy is effective in helping individuals cope with anxiety, trauma, and emotional regulation difficulties (Gong et al., 2024; Liang et al., 2024; Schoonover et al., 2024). However, studies that integrate these two approaches into

a single systematic intervention design, particularly in the context of higher education in Indonesia, remain very limited.

Most previous studies on anxiety reduction have focused on cognitive and behavioural approaches that emphasise rational strategies, leaving little room for symbolic expression and deep emotional experience (Abbing et al., 2018; Bosgraaf et al., 2020). Many students struggle to express their emotions verbally; therefore, non-verbal techniques such as Sandtray Therapy can serve as an effective alternative (Mason, 2022). Integrating this method with Adlerian Counselling provides meaningful direction for the symbols that emerge, enabling a more structured and profound process of emotional healing (Liang & Rodriguez, 2025). This study aims to examine the effectiveness of Adlerian Counselling combined with Sandtray Therapy in reducing anxiety among final-year university students. The results are expected to contribute to the development of creative, symbol-based counselling intervention models and offer practical benefits for enhancing counselling services in higher education institutions.

RESEARCH METHODS

Research Approaching and Design

This study used a quantitative, quasi-experimental one-group pretest–posttest design. This design was utilised to examine the effectiveness of Adlerian Counselling combined with Sandtray Therapy in reducing anxiety among final-year university students. In this design, participants received an intervention (treatment), and their anxiety scores were compared before and after the intervention. Changes in pretest and posttest scores indicated the intervention’s effectiveness.

Table 1

Research Design

Group	Pretest	Intervention	Posttest
Experimental	O ₁	X	O ₂

Notes:

O₁ = Initial measurement (pretest) using the anxiety scale

X = Intervention through Adlerian Counseling combined with Sandtray Therapy

O₂ = Final measurement (posttest) using the same anxiety scale

Research Subject

The research subjects were final-year students from the Faculty of Education, Ganesha University of Education, who exhibited moderate to high levels of anxiety. Participants were selected using a purposive sampling technique, with specific inclusion criteria: active students who demonstrated moderate to high anxiety levels based on the results of the initial anxiety scale assessment. The study included 10 participants, which aligns with the requirements for a small-group trial in limited experimental research.

Research Instruments

This study used the Adlerian-Based Anxiety Scale, developed from Adlerian personality theory and adapted from the Basic Adlerian Scales for Interpersonal Success-Adult Form (BASIS-A) (Shooli et al., 2025). The scale was designed to assess psychological conditions related to core Adlerian constructs, including feelings of inferiority, striving for superiority (courage), social interest, and life goals, which are central components of Adlerian theory (Adler, 2024; Rasmussen, 2021). These constructs were operationalised into measurable indicators reflecting anxiety-related tendencies, such as low self-worth, avoidance of challenges, limited social connectedness, and lack of life direction.

The instrument included 20 items rated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Five negatively phrased items assessed inferiority-related anxiety, while the remaining items measured adaptive Adlerian characteristics such as social interest and purposeful living, as reflected in the BASIS-A framework. Higher

total scores indicated lower levels of Adlerian-based anxiety, reflecting better psychological adjustment, stronger social interest, and clearer life goals. The instrument's validity was assessed using Spearman's rank correlation between individual items and total scores, with correlation coefficients ranging from $r = 0.42$ to 0.76 , indicating acceptable item validity. The instrument's internal consistency was assessed using Cronbach's Alpha coefficient ($\alpha = 0.87$), indicating high reliability for use in this study.

Research Procedures

The research implementation consisted of three interrelated stages: preparation, intervention, and evaluation. During the preparation stage, the researcher developed a systematic schedule for the intervention activities and completed all necessary administrative procedures to obtain research authorisation. After obtaining approval, the researcher briefed potential participants and provided informed consent forms to ensure participation was voluntary. Subsequently, a pretest was administered using the anxiety scale to measure participants' baseline levels of anxiety before the intervention sessions commenced.

During the intervention stage, participants engaged in four structured Adlerian Counselling sessions combined with Sandtray Therapy. Each session lasted about 60 minutes and focused on a distinct theme: exploring sources of anxiety, strengthening self-meaning, developing social connections, and reconstructing life goals. Throughout the sessions, the counsellor facilitated symbolic reflection, guiding participants to express emotions and personal meanings through sand and symbolic miniatures. The approach was non-directive, allowing participants to interpret the symbolic representations in their trays while the counsellor encouraged deeper self-exploration rather than offering direct interpretations.

The final stage, or evaluation phase, occurred after all intervention sessions were completed. During this phase, participants completed a posttest using the same anxiety scale administered during the pretest to assess changes in anxiety levels following the therapy. In addition to the quantitative assessment, participants provided qualitative feedback on their counselling experiences, offering insights into the intervention's perceived effectiveness and identifying areas for improvement in future implementations.

Summary of Materials

The materials used in Sandtray Therapy were carefully prepared to support participants' symbolic expression and emotional reflection, in line with Adlerian counselling principles. The primary medium consisted of a sandtray measuring approximately 50 × 70 × 7 cm, filled with fine, clean sand, accompanied by a diverse collection of miniatures representing various aspects of life, such as human figures (family members, guardians, authority figures), animals (wild, domestic, mythological), common objects (houses, trees, bridges, water, stones), and spiritual or reflective symbols. These miniatures let participants visually externalise inner experiences and interpersonal dynamics within a constructed "sand world".

Figure 1

Example of Symbolic Representation In Sandtray Therapy Using Animal And Object Miniatures



The counsellor acted as a non-directive facilitator, guiding participants to explore symbolic meanings without offering direct interpretation. With participants' consent, the counsellor documented each sandtray creation in the therapeutic record.

Figure 2

Implementation process of sandtray therapy sessions conducted with participants



The structure and variety of these materials enabled participants to express emotions, discover personal meaning, and build the courage to confront anxiety, aligning with Adlerian Counselling's core values (Evans, 2021).

Data Analysis

The quantitative data from the pretest and posttest were analysed using the Wilcoxon Signed-Rank Test, a non-parametric statistical method suitable for comparing paired scores within the same group. This test was selected due to the small sample size and the assumption that the data might not follow a normal distribution (Effendi & Juita, 2024).

RESEARCH RESULT

Descriptive Analysis

This study involved 10 final-year students from the Faculty of Education, Universitas Pendidikan Ganesha, who exhibited moderate to high levels of anxiety at the initial assessment. Data were collected using an anxiety scale administered before (pretest) and after the intervention (posttest). To provide a clearer overview, descriptive statistical analysis was conducted. Table 2 presents participants' anxiety scores before and after the intervention.

Table 2

Students' Anxiety Scores Before and After the Intervention

No	Participant	Pretest Score	Posttest Score	Score Reduction
1	M-01	78	58	20
2	M-02	72	55	17
3	M-03	70	50	20
4	M-04	75	60	15
5	M-05	68	52	16
6	M-06	74	54	20
7	M-07	80	62	18
8	M-08	71	56	15
9	M-09	73	53	20
10	M-10	69	51	18

Notes:

Average Pretest Score: 73.0

Average Posttest Score: 55.1

Average Score Reduction: 17.9 points

The results indicate a substantial decrease in anxiety scores, with the mean score declining from 73.0 to 55.1, showing an average reduction of 17.9 points. The standard deviation values suggest relatively consistent changes across participants.

Table 3

Descriptive Statistics of Anxiety Scores

Variable	Mean	SD	Min	Max
Pretest	73.0	3.86	68	80
Posttest	55.1	3.92	50	62

Assumption Test

Before conducting inferential analysis, a normality test was performed using the Shapiro–Wilk test due to the small sample size ($n = 10$). The results indicate that both pretest and posttest data were not normally distributed ($p < 0.05$). Therefore, the normality assumption was not met, and a nonparametric statistical test was more appropriate.

Table 4

Results of Normality Test

Variable	Shapiro-Wilk Sig.
Pretest	< 0.05
Posttest	< 0.05

Inferential Analysis

To determine whether anxiety significantly decreased, we conducted a Wilcoxon signed-rank test. The results showed $Z = -2.803$ and $p = 0.005$ ($p < 0.05$). The results indicate a statistically significant difference between pretest and posttest scores. This means the Adlerian Counseling with Sandtray Therapy intervention is effective in reducing anxiety among final-year university students.

Table 5

Results of the Wilcoxon Signed-Rank Test

Statistic	Value
N	10
Mean Rank (Post < Pre)	5.50
Z-value	-2.803
Asymp. Sig. (2-tailed)	0.005

DISCUSSION

The findings of this study support the hypothesis that Adlerian Counselling combined with Sandtray Therapy is effective in reducing students' anxiety. The significant decrease in anxiety scores indicates that the intervention successfully facilitated emotional regulation and psychological adjustment among participants. The structured

integration of symbolic expression and meaning-making processes appears central to reducing anxiety symptoms. Adlerian Counselling provides a cognitive and existential framework for this process, emphasising courage, social connectedness, and the development of life meaning (Christian et al., 2021; McCarty & Christian, 2020). As participants developed a stronger sense of purpose and belonging, their anxiety related to academic uncertainty and future expectations gradually decreased (Rasmussen, 2021).

These findings align with previous studies showing that Adlerian-based interventions effectively reduce anxiety by enhancing social functioning and a sense of meaning in life (Reid, 2021; Wiersma et al., 2022). Sandtray Therapy facilitates emotional expression and regulation, particularly for individuals who struggle to verbalise their internal experiences (Sauerheber & Bitter, 2024). Integrating these two approaches allows participants to externalise internal conflicts symbolically while reconstructing personal meaning within a structured counselling framework (Fatimah et al., 2024). This dual process strengthens both emotional awareness and adaptive coping mechanisms (Jung, 2024; Liang & Rodriguez, 2025). As (Homeyer and Sweeney (2022). suggest, symbolic representation in sandtray therapy helps individuals access deeper emotional layers, while Adlerian interpretation guides these experiences toward constructive life goals and social interest.

Further insights into the therapeutic process can be understood through the symbolic representations participants construct during sandtray sessions. The arrangement of figurines reflects clients' inner dynamics, particularly their experiences of threat, protection, and self-perception. Wild animal figures, such as lions and tigers, can symbolize individuals perceived as intimidating or emotionally distressing, suggesting unresolved fear and vulnerability. In contrast, the emergence

of protective figures, such as a grandfather representation, reflects the client's search for safety, emotional support, and stability in the face of psychological stress.

Additionally, the placement of certain figures, such as a turtle representing a younger sibling positioned away from threatening elements, suggests a protective orientation toward significant others. The appearance of a self-figure in a different gender form indicates an internal identity conflict and symbolically expresses the strength the client aspires to embody. Other symbolic elements, such as containers representing "stored regrets," illustrate ongoing processes of self-reflection and emotional reconciliation. From an Adlerian perspective, these symbolic configurations reflect unresolved inferiority feelings accompanied by a striving for superiority, understood as the individual's effort to achieve competence and psychological security.

In other cases, the symbolic representations reveal themes of emotional separation and the making of spiritual meaning. Certain animal figures symbolise the self as vulnerable yet hopeful, while others represent significant family members, indicating both emotional support and relational complexity. Spatial separations within the sandtray, such as dividing elements, reflect perceived emotional distance from significant figures, which may be associated with loss, conflict, or detachment. The inclusion of spiritual symbols highlights the individual's orientation toward transcendence as a source of meaning, protection, and psychological resilience. Furthermore, representations of emptiness signify an ongoing search for emotional fulfilment and inner peace.

From an Adlerian Counselling perspective, these symbolic expressions illustrate a psychological movement from feelings of inferiority toward insight, social interest, and a sense of meaning in life. Through the sandtray process, clients begin to recognise relational

patterns, accept personal vulnerabilities, and reconstruct more adaptive life goals. This transformation reflects the development of courage, self-acceptance, and a stronger sense of belonging, which are central constructs in Adlerian theory. Therefore, Sandtray Therapy serves not only as a medium for symbolic emotional expression but also as a structured pathway for facilitating deeper psychological integration and meaning-making.

Despite the promising findings, this study has several limitations. First, the one-group pretest–posttest design without a control group limits the ability to draw strong causal inferences about the intervention's effectiveness. Second, the reliance on a single quantitative instrument may not fully capture the complexity of participants' psychological experiences. Future studies should include control groups and integrate mixed-method approaches to provide a more comprehensive understanding of the intervention's effectiveness.

CONCLUSION

Based on the findings, it can be concluded that Adlerian Counselling combined with Sandtray Therapy is effective in reducing anxiety among final-year university students. Through four structured intervention sessions, participants showed positive changes in both emotional and cognitive aspects. Using sand and miniature figures helped students express their anxiety symbolically, reflect on their experiences, and better understand themselves. The Wilcoxon Signed-Rank Test results also showed a significant difference between pretest and posttest scores, supporting the effectiveness of this approach. Therefore, this counselling model can be considered an alternative strategy in university counselling services to help students manage anxiety. However, this study did not use a control group; future studies

are suggested to apply a more rigorous experimental design to strengthen the findings.

REFERENCE

- Abbing, A., Ponstein, A., Van Hooren, S., De Sonnevile, L., Swaab, H., & Baars, E. (2018). The effectiveness of art therapy for anxiety in adults: A systematic review of randomised and non-randomised controlled trials. *PLoS ONE*, 13(12), 1–19. <https://doi.org/10.1371/journal.pone.0208716>
- Adler, A. (2024). *Understanding human nature the psychology of personality*. Bod-Books on Demand.
- Ariska, A., Yani, D. P., Purweny, H., Putri, L. S. M. M., & Sahid, V. I. (2024). Manajemen stres pada mahasiswa semester akhir Program Studi Manajemen Sekolah Tinggi Ilmu Ekonomi Tanjungpinang. *PESHUM: Jurnal Pendidikan, Sosial dan Humaniora*, 4(1), 790–806. <https://doi.org/10.56799/peshum.v4i1.6700>
- Ashori, M., & Shamsi, A. (2023). The effect of adlerian play therapy on the alexithymia and social isolation of deaf students. *International Journal of Play Therapy*, 32(1), 10–21. <https://doi.org/10.1037/pla0000192>
- Berutu, R., & Mutiawati, M. (2023). Understanding learning anxiety and mental health of final year students: A qualitative study. *ProGCouns: Journal of Professionals in Guidance and Counseling*, 4(1), 42–51. <https://doi.org/10.21831/progcouns.v4i1.60000>
- Bosgraaf, L., Spreen, M., Pattiselanno, K., & Hooren, S. V. (2020). Art therapy for psychosocial problems in children and adolescents: A systematic narrative review on art therapeutic means and forms of expression, therapist behavior, and supposed mechanisms of change. *Frontiers in Psychology*, 11, 1–32. <https://doi.org/10.3389/fpsyg.2020.584685>
- Christian, D. D., McCarty, D. L., & Brown, C. L. (2021). Navigating adventure therapy: Using adlerian theory as a guide. *The Journal of Individual Psychology*, 77(3), 374–388. <https://doi.org/10.1353/jip.2021.0026>

- Corbett, B. A., Muscatello, R. A., Klemencic, M. E., & Schwartzman, J. M. (2021). The impact of COVID-19 on stress, anxiety, and coping in youth with and without autism and their parents. *Autism Research*, 14(7), 1496–1511. <https://doi.org/10.1002/aur.2521>
- Corey, G. (2023). *Theory and practice of counseling and psychotherapy*. Cengage.
- Effendi, M., & Juita, F. (2024). *Statistik non parametrik: Sebuah tinjauan aplikatif untuk penelitian sosial*. Penerbit NEM.
- Erbaş, M. M. (2023). Adlerian therapy: A general review. *International Journal of Innovative Approaches in Education*, 7(2), 79–90. <https://doi.org/10.29329/ijiape.2023.567.3>
- Evans, C. (2021). Trauma-informed adlerian play therapy: A case study. *The Journal of Individual Psychology*, 77(3), 362–373. <https://doi.org/10.1353/jip.2021.0025>
- Fatimah, V., Ramli, M., & Wahyuni, F. (2024). Counseling Adlerian approach: A systematic literature review. *Technium Social Sciences Journal*, 54, 234–240. <https://doi.org/10.47577/tssj.v54i1.10401>
- Febri, H. (2024). Stres no more: Strategi efektif mengelola stres di tengah kehidupan digital. *Coram Mundo: Jurnal Teologi Dan Pendidikan Agama Kristen*, 6(2), 54–71. <https://doi.org/10.55606/corammundo.v6i2.383>
- Gong, X. W. (2024). Case studies of sandtray play in promoting recovery of children with psychological trauma. *Hong Kong Journal of Mental Health*, 50(1), 34–42. <https://www.mhahk.org.hk/index.php/journal2024s/?lang=zh>
- Homeyer, L. E., & Sweeney, D. S. (2022). *Sandtray therapy*. Routledge. <https://doi.org/10.4324/9781003221418>
- Jayanti, S., & Adim, A. K. (2024). Konsep diri self-diagnose anxiety mahasiswa Prodi Ilmu Komunikasi Universitas Telkom. *Jurnal Ilmu Komunikasi UHO: Jurnal Penelitian Kajian Ilmu Komunikasi dan Informasi*, 9(4), 866–883. <https://doi.org/10.52423/jikuho.v9i4.322>
- Jung, B. (2024). An analytical psychology perspective on suicide, depression and suicidal ideation: Therapeutic approaches

- through sandplay therapy. *Journal of Symbols & Sandplay Therapy*, 15(3), 1–18. <https://doi.org/10.12964/jsst.24010>
- Keane, C., Waldeck, D., Holliman, A., Goodman, S., & Choudhry, K. (2021). Exploring the experience of anxiety among final year students at university: A thematic analysis. *The Qualitative Report*, 26(8), 2621–2630. <https://doi.org/10.46743/2160-3715/2021.4874>
- Liang, J., Pan, J., & He, Y. (2024). Utilising sandplay therapy to support children with intellectual disabilities and complex mental health needs in China's child welfare institutions: A case study. *International Journal of Developmental Disabilities*, 1–14. <https://doi.org/10.1080/20473869.2024.2414136>
- Liang, Y.-W. M., & Rodriguez, C. M. (2025). When worlds collide: Impacts of personal self on counselor identity through the sandtray lens. *Journal of Education and Social Development*, 9(1), 9–16. <https://doi.org/10.5281/zenodo.16195367>
- Mason, M. (2022). An exploratory investigation of using sandtray in couples therapy. *Psychological Applications and Trends*, 27–31. <https://doi.org/10.36315/2022inpact006>
- McCarty, D. L., & Christian, D. D. (2020). Using an adventure therapy activity to assess the adlerian lifestyle. *Journal of Creativity in Mental Health*, 15(3), 393–404. <https://doi.org/10.1080/15401383.2019.1697405>
- Oetari, A. Y., Nishafa, D. K., Susanto, A. M., & Alhabsyi, B. (2024). Konseling adlerian dalam mengidentifikasi penanganan harga diri. *Advice: Jurnal Bimbingan dan Konseling*, 6(1), 23–31. <https://doi.org/10.32585/advice.v6i1.5146>
- Parsons, M. (2023). Using sand tray therapy with individuals diagnosed with alzheimer's disease. *World Journal for Sand Therapy Practice®*, 1(9), 1–15. <https://doi.org/10.58997/wjstp.v1i9>
- Rahmawati, A., Agustini, A., Ramadhan, M. R., Zulfaa, N. M., & Nisrina, H. (2025). Gangguan kesehatan mental terhadap performa akademik mahasiswa tingkat awal. *Educate : Journal of Education and Learning*, 3(1), 1–15. <https://doi.org/10.61994/educate.v3i1.329>

- Rasmussen, P. R. (2021). Adaptive reorientation therapy: An adlerian-based model of psychological treatment. *The Journal of Individual Psychology*, 77(1), 73–95. <https://doi.org/10.1353/jip.2021.0005>
- Reid, M. (2021). Finding safety. In R. Grayson & T. Fraser, *The embodied brain and sandtray therapy* (1st edn, pp. 193–207). Routledge. <https://doi.org/10.4324/9781003055808-14>
- Sauerheber, J. D., & Bitter, J. R. (2024). Getting up from the rocking chair: Adlerian interventions in anxiety disorders. *The Journal of Individual Psychology*, 80(4), 241–255. <https://doi.org/10.1353/jip.00010>
- Schoonover, T., Jha, P., Romito, M., Arogundade, B., & DePinto, A. (2024). Sandtray therapy's impact on trauma symptoms in adults. *Journal of Creativity in Mental Health*, 1–17. <https://doi.org/10.1080/15401383.2024.2377410>
- Shooli, Z. A., Khodarahimi, S., Bougar, M. R., Rasti, A., Mazraeh, N., & Golchin, M. (2025). The role of emotional empathy and assertiveness in interpersonal success: Mediating effects of conflict management. *The Journal of Psychology*, 1–21. <https://doi.org/10.1080/00223980.2025.2546861>
- Sweeney, D. S. (2021). Sandtray therapy. In H. G. Kaduson & C. E. Schaefer (Eds), *Play therapy with children: Modalities for change* (pp. 9–24). American Psychological Association. <https://doi.org/10.1037/0000217-002>
- Wiersma, J. K., Freedle, L. R., McRoberts, R., & Solberg, K. B. (2022). A meta-analysis of sandplay therapy treatment outcomes. *International Journal of Play Therapy*, 31(4), 197–215. <https://doi.org/2022-48948-001>