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Effectiveness of Behavioral Therapy Based on Systematic Desensitization in Reducing Anxiety and Animal-Phobia Symptoms in Adolescents

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1. Round 1

1.1 Reviewer 1

Reviewer:

The paragraph beginning with “Behavioral theories explain the development and maintenance of phobia through classical conditioning” appropriately summarizes theoretical mechanisms, but the manuscript does not adequately integrate contemporary inhibitory learning theory, which has become central in modern exposure-based treatment literature. The authors should discuss whether their intervention primarily relied on reciprocal inhibition or whether inhibitory learning processes may better explain symptom reduction.

The statement “fewer studies have focused specifically on animal phobia in adolescents using structured systematic desensitization protocols” requires stronger empirical substantiation. The authors should explicitly identify gaps in prior adolescent-specific literature, clarify how their protocol differs from prior exposure studies, and explain what constitutes the novelty of the present intervention relative to existing exposure-based treatments.

In the Methods section, the authors describe the design as a “quasi-experimental pretest-posttest design with a wait-list control group,” yet participants were also “randomly assigned” after recruitment. This creates conceptual ambiguity because

the design contains partially randomized elements. The manuscript should clearly explain whether this was a randomized controlled trial with convenience sampling or a true quasi-experimental design, and terminology should be standardized accordingly throughout the manuscript.

The participant recruitment procedure lacks sufficient detail. The phrase “selected by convenience sampling” does not explain how many adolescents were initially screened, how many declined participation, how many failed eligibility criteria, or whether any participants dropped out before posttest assessment. A participant flow diagram consistent with CONSORT-style reporting would substantially improve methodological transparency.

The diagnostic screening procedure relies on “a clinical screening interview guided by DSM-5 criteria,” but no information is provided about the qualifications of the interviewer, inter-rater reliability, or use of structured/semi-structured diagnostic instruments. Without such information, diagnostic validity remains uncertain. The authors should clarify whether interviews were conducted by licensed clinicians, trained graduate students, or researchers and whether diagnostic consistency was evaluated.

The manuscript states that “a score above 29 on the 10 animal-related items of the Specific Phobia Questionnaire was used as an operational threshold,” yet no justification or citation is provided for this cutoff. The authors should explain how this threshold was derived, whether it was validated previously, and whether sensitivity/specificity data support its use for identifying clinically significant animal phobia.

In the Measures subsection, the authors note that “internal consistency for this shortened item set was not recalculated for the present study.” This is a major psychometric limitation because the study relied heavily on a modified instrument. The authors should calculate and report Cronbach’s alpha or omega reliability for the 10-item animal-phobia subset within the current sample to establish minimum measurement adequacy.

The intervention protocol is described broadly, but the manuscript does not provide sufficient procedural detail for replication. For example, the “semi-real exposure” and “direct controlled exposure” phases remain vague regarding exposure duration, therapist prompting, subjective distress thresholds, and progression criteria between hierarchy levels. The authors should provide operational definitions and treatment progression criteria to improve reproducibility.

Table 1 outlines the eight-session protocol; however, no information is provided regarding therapist training, supervision, or competency evaluation. Because therapist skill substantially influences exposure-based interventions, the manuscript should report therapist qualifications, years of experience, adherence procedures, and whether intervention delivery was standardized across participants.

The manuscript states that ANCOVA assumptions “were considered acceptable ($p > .05$),” but actual test statistics are not reported. The authors should present full assumption-testing results, including Shapiro–Wilk values, Levene’s test statistics, and group × pretest interaction results. Reporting only that assumptions were “acceptable” limits methodological transparency and prevents readers from independently evaluating model validity.

The limitation section correctly notes the absence of “behavioral approach test” outcomes, but this issue deserves greater emphasis because behavioral avoidance is central to specific phobia diagnosis. Reliance exclusively on self-report outcomes raises concerns regarding demand characteristics and subjective response bias. Future versions of the manuscript should discuss this methodological issue more critically.

Authors revised the manuscript and uploaded the updated document.

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1.2 Reviewer 2

Reviewer:

The Results section reports large effect sizes (partial eta squared = .728 for anxiety and .547 for animal phobia), yet confidence intervals for effect sizes are not provided. Given the small sample and unusually large effects, reporting confidence intervals would allow readers to better assess estimate precision and potential inflation associated with limited sample sizes.

Figure 1 presents mean change scores visually, but the figure lacks confidence intervals or error bars. Because visual interpretation can exaggerate apparent group differences, the inclusion of standard error bars or 95% confidence intervals would improve interpretability and scientific rigor.

The Discussion attributes symptom reduction primarily to "behavioral learning theory" and "reciprocal inhibition," but alternative explanations are insufficiently addressed. Because the study lacked an active comparison group, the observed improvements may also reflect expectancy effects, therapist attention, repeated assessment exposure, or regression to the mean. These alternative explanations should be discussed more explicitly.

The paragraph beginning "One clinically relevant feature of systematic desensitization is its structured and gradual format" appropriately discusses self-efficacy, yet the study did not directly measure self-efficacy changes. Therefore, theoretical interpretations involving Bandura's framework remain speculative. The authors should either acknowledge this limitation explicitly or avoid making causal interpretations regarding self-efficacy mechanisms without empirical assessment.

The manuscript repeatedly refers to reductions in "animal-phobia symptoms," but it remains unclear whether improvements generalized across different animal categories or were concentrated around specific feared animals. The authors should clarify whether participants had heterogeneous animal fears (e.g., dogs, insects, reptiles) and whether symptom reductions differed by phobia subtype.

Authors revised the manuscript and uploaded the updated document.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.

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