



The Correlation between Dancing and the Body Image of Teenagers with Low Self-Esteem in Antipolo City

Cristina Sandra G. Cirelos*

University of Perpetual Help System Manila, Philippines

Abstract

Body image dissatisfaction and low self-esteem remain pressing mental health concerns among adolescents, increasingly amplified by social media exposure to unrealistic beauty standards. This quantitative study determined the correlation between dancing and the body image of 50 teenagers (aged 13–17) with low self-esteem from San Roque National High School in Antipolo City, Philippines. Participants were screened using the State Self-Esteem Scale (SSES) and assessed with the Body Appreciation Scale-2 (BAS-2) across pre-test, mid-test, and post-test phases. The dancing intervention involved learning choreographies of two BINI songs — Pantropiko and Salamin, Salamin — over four weeks, performed at home and submitted via video recording. Results showed that BAS-2 scores improved significantly from a pre-test weighted mean of 1.99 (Seldom) to 2.87 (Sometimes) at mid-test, and 4.05 (Often) at post-test. A One-Way ANOVA yielded an F-value of 433.9, far exceeding the critical F-value of 3.35 ($p < 0.05$), confirming statistical significance. The item 'I am comfortable in my body' showed the greatest improvement, rising from the lowest- to the highest-rated item. These findings support dancing as an effective, culturally relevant occupational therapy intervention for improving adolescent body image and self-esteem.

Keywords: Body Image; Self-Esteem; Dancing; Teenagers; BINI; Body Appreciation; Dance Movement Therapy; Filipino Youth; Mental Health; Occupational Therapy

Abbreviations

BAS-2: Body Appreciation Scale-2; SSES: State Self-Esteem Scale; ANOVA: Analysis of Variance; DMT: Dance Movement Therapy; OT: Occupational Therapy; BINI: An 8-member Filipino pop girl group; WHO: World Health Organization; NEDC: National Eating Disorders Collaboration

Introduction

Body image refers to an individual's subjective perception of their own physical appearance and plays a crucial role in adolescent psychological well-being. A positive body image fosters self-acceptance, confidence, and resilience, whereas a negative body image contributes to low self-esteem, shame, and increased vulnerability to mental health conditions such as depression and anxiety. In today's digital age, the widespread influence of social media platforms has intensified self-comparison among adolescents, creating pressure to conform to unattainable beauty standards set by influencers, celebrities, and peers.

These social pressures are particularly pronounced among Filipino teenagers, whose cultural history of colonial beauty ideals — including preferences for fair skin, a slim figure, and a straight nose — compounds the psychological burden of digital self-comparison. Research indicates that younger Filipinos, especially those aged 15 to 24, report the highest rates of negative body image nationally [17]. In response to these challenges, creative and culturally grounded interventions are needed to promote body positivity and self-esteem in this population.

Dance has long been recognized as a medium for self-expression, communication, and emotional well-being. Emerging literature on dance movement therapy (DMT) highlights its potential in improving mood, enhancing physical self-perception, and increasing self-esteem. Of particular cultural resonance in the Philippines is BINI, an 8-member Filipino pop girl group whose music and choreography have gained widespread recognition for their empowering themes of confidence and self-expression. Songs such as Pantropiko and Salamin, Salamin carry affirming messages that align with therapeutic goals of improving body image among adolescents.

Despite growing interest in the link between music, dance, and mental health, limited empirical



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*Correspondence:

Cristina Sandra G. Cirelos, University of Perpetual Help System Manila, Philippines, Tel: 09952077189; E-mail: m22-0660-470@manila.uphsl.edu.ph

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studies examine dance as a structured occupational therapy intervention targeting body image among Filipino teenagers with low self-esteem. This study aims to bridge that gap by investigating the correlation between dancing — specifically to BINI music — and body image outcomes among adolescents in Antipolo City. The study further seeks to determine whether a statistically significant difference exists across testing phases following a structured four-week dance intervention.

Materials and Methods

Research Design

This study employed a quantitative pre-experimental research design using a single-group pre-test, mid-test, and post-test approach. This design was selected to measure changes in body appreciation across three assessment points following a structured dance intervention, without a control group, given the exploratory nature of the study.

Participants and Sampling

Purposive sampling was used to select 50 teenagers aged 13 to 17 years old from San Roque National High School in Antipolo City. Inclusion criteria required participants to score within the low self-esteem range on the State Self-Esteem Scale (SSES) administered during a pre-survey phase. All participants provided informed assent, and parental consent was obtained prior to study participation. Participation was voluntary, and participants were informed of their right to withdraw at any time.

Instruments

Two validated instruments were used in this study:

State Self-Esteem Scale (SSES): A 20-item scale that measures state self-esteem across three subscales — social, performance, and appearance. The SSES was used during the pre-survey to screen and confirm participants' low self-esteem status.

Body Appreciation Scale-2 (BAS-2): A 10-item scale measuring positive body image, including attitudes of acceptance, respect, and love toward one's body. The BAS-2 served as the primary outcome measure for pre-test, mid-test, and post-test assessments. Responses were rated on a 5-point Likert scale (1 = Never to 5 = Always). Weighted means were computed and interpreted using established verbal descriptors.

Intervention

The dancing intervention was conducted over four weeks. Participants learned the choreographies of two BINI songs — Pantropiko and Salamin, Salamin — selected for their empowering messages and themes of self-expression and confidence. An introductory session was conducted via Google Meet, during which the researcher facilitated choreography instruction. Participants practiced the routines at home and submitted video recordings via Google Drive at designated intervals. Mid-test BAS-2 assessments were administered after the first song (Pantropiko), and post-test assessments were conducted upon completion of the second song (Salamin, Salamin).

Data Analysis

Descriptive statistics — specifically weighted means and verbal interpretations — were used to summarize BAS-2 scores at each assessment phase. A One-Way Analysis of Variance (ANOVA) was conducted to determine whether statistically significant differences

existed across the pre-test, mid-test, and post-test scores. The alpha level was set at 0.05, and the critical F-value at $df(2, 147)$ was 3.35. Ranking analysis was used to identify the five most poorly rated BAS-2 items at pre-test and the items showing the greatest improvement at post-test.

Results and Discussion

Demographic Profile of Participants

The study involved 50 teenagers from San Roque National High School. The majority were 16 years old ($n = 26$; 52.00%), followed by 15-year-olds ($n = 10$; 20.00%), 14-year-olds ($n = 8$; 16.00%), and those aged 17 and above ($n = 6$; 12.00%). These findings are consistent with literature noting that mid-adolescence is marked by heightened self-consciousness and identity exploration, rendering 16-year-olds particularly vulnerable to body image pressures [15].

In terms of sex, 32 participants (64.00%) were female and 18 (36.00%) were male. This distribution reflects established findings that girls demonstrate significantly greater body dissatisfaction than boys, owing to societal expectations and intensified exposure to curated digital imagery [8, 10] (Table 1).

Pre-Test Results: Body Appreciation Scale-2

Prior to the dance intervention, the total weighted mean on the BAS-2 was 1.99, falling within the 'Seldom' range (1.81–2.60). This indicates a low baseline of body appreciation among participants. The National Eating Disorders Collaboration (NEDC, 2023) notes that adolescents are particularly susceptible to negative body image due to peer pressure, media representation, and social beauty norms — a

Table 1: Frequency and Percentage of the Participants in Terms of Age and Sex.

Demographic Profile	Category	Frequency	Percentage (%)
Age	14 years old	8	16.00
	15 years old	10	20.00
	16 years old	26	52.00
	17 years old and above	6	12.00
	Total	50	100.00
Sex	Male	18	36.00
	Female	32	64.00
	Total	50	100.00

Table 2: Weighted Mean and Verbal Interpretation of the Pre-Test BAS-2 Results.

Body Appreciation Statement	Weighted Mean	Verbal Interpretation
1. I respect my body.	2.34	Seldom
2. I feel good about my body.	2.16	Seldom
3. I feel that my body has at least some good qualities.	2.14	Seldom
4. I take a positive attitude toward my body.	2.08	Seldom
5. I am attentive to my body's needs.	1.96	Seldom
6. I feel love for my body.	1.88	Seldom
7. I appreciate the different and unique characteristics of my body.	1.88	Seldom
8. My behavior reveals my positive attitude toward my body.	1.90	Seldom
9. I am comfortable in my body.	1.78	Never
10. I feel like I am beautiful even if I am different from media images.	1.78	Never
Total Weighted Mean	1.99	Seldom

reality clearly reflected in these baseline scores.

Items 9 ('I am comfortable in my body') and 10 ('I feel like I am beautiful even if I am different from media images of attractive people') each yielded the lowest scores of 1.78, falling in the 'Never' category. This indicates profound physical discomfort and an over-reliance on external media standards for self-validation. Bambao et al. (2021) link such insecurities to the Philippines' colonial legacy of narrow beauty norms that most teenagers cannot realistically meet (Table 2).

Five Most Poorly Rated BAS-2 Items Prior to Dancing Activities

The five most poorly rated items in descending order of concern were: (1) 'I am comfortable in my body' ($M = 1.78$); (2) 'I feel like I am beautiful even if I am different from media images of attractive people' ($M = 1.78$); (3) 'I feel love for my body' ($M = 1.88$); (4) 'I appreciate the different and unique characteristics of my body' ($M = 1.88$); and (5) 'My behavior reveals my positive attitude toward my body' ($M = 1.90$). These results collectively indicate a pattern of disembodiment — the participants not only struggled with self-appearance but lacked a functional, comfortable, and loving relationship with their physical selves.

Mid-Test Results After Dancing to Pantropiko

Following the first dance activity, the total BAS-2 weighted mean rose to 2.87, now within the 'Sometimes' range (2.61–3.40). This represents a meaningful improvement from the baseline of 1.99. Notably, the 'Never' interpretation was entirely absent from mid-test scores. Item 9 ('I am comfortable in my body') rose from 1.78 to 2.92, and Item 10 improved from 1.78 to 2.72. Item 8 ('My behavior reveals my positive attitude toward my body') increased from 1.90 to 2.78, suggesting a behavioral shift as participants began actively engaging in movements they enjoyed. Millman et al. (2020) support these findings, noting that dance movement therapy demonstrates clear potential as a treatment for negative self-perception even within short intervention periods (Table 3).

Post-Test Results After Completing the Dancing Activities

By the end of the four-week program, the total BAS-2 weighted mean reached 4.05, classified as 'Often' (3.41–4.20) — a dramatic increase from both the baseline (1.99) and the mid-test (2.87). Item 9, 'I am comfortable in my body,' reached the highest score of 4.20. This is a remarkable reversal from its position as the lowest-rated item at pre-test, demonstrating the dance intervention's powerful capacity to foster embodiment. Item 6 ('I feel love for my body') scored 4.16, and Item 10 ('I feel like I am beautiful even if I am different from media images') reached 4.02, indicating a significant increase in psychological resilience and internal beauty validation.

Significance of Differences: One-Way ANOVA

A One-Way Analysis of Variance (ANOVA) was conducted to determine whether statistically significant differences existed across the three assessment phases. The calculated F-value of 433.9 substantially exceeded the critical F-value of 3.35 at the 0.05 level of significance, confirming that the improvements across pre-test, mid-test, and post-test are statistically significant and cannot be attributed to random variation. The alternative hypothesis was accepted: there is a significant difference between the pre-test, mid-test, and post-test results in the BAS-2 after the dancing activities. This result underscores the therapeutic efficacy of structured dance programs as a legitimate occupational therapy intervention for adolescent body

Table 3: Weighted Mean and Verbal Interpretation of the Mid-Test BAS-2 Results.

Body Appreciation Statement	Weighted Mean	Verbal Interpretation
1. I respect my body.	3.30	Sometimes
2. I feel good about my body.	2.98	Sometimes
3. I feel that my body has at least some good qualities.	2.86	Sometimes
4. I take a positive attitude toward my body.	2.92	Sometimes
5. I am attentive to my body's needs.	2.76	Sometimes
6. I feel love for my body.	2.80	Sometimes
7. I appreciate the different and unique characteristics of my body.	2.66	Sometimes
8. My behavior reveals my positive attitude toward my body.	2.78	Sometimes
9. I am comfortable in my body.	2.92	Sometimes
10. I feel like I am beautiful even if I am different from media images.	2.72	Sometimes
Total Weighted Mean	2.87	Sometimes

Table 4: Weighted Mean and Verbal Interpretation of the Post-Test BAS-2 Results.

Body Appreciation Statement	Weighted Mean	Verbal Interpretation
1. I respect my body.	4.08	Often
2. I feel good about my body.	4.02	Often
3. I feel that my body has at least some good qualities.	4.02	Often
4. I take a positive attitude toward my body.	3.96	Sometimes
5. I am attentive to my body's needs.	3.92	Sometimes
6. I feel love for my body.	4.16	Often
7. I appreciate the different and unique characteristics of my body.	4.12	Often
8. My behavior reveals my positive attitude toward my body.	4.02	Often
9. I am comfortable in my body.	4.20	Often
10. I feel like I am beautiful even if I am different from media images.	4.02	Often
Total Weighted Mean	4.05	Often

Table 5: One-Way ANOVA Results: Pre-Test, Mid-Test, and Post-Test BAS-2 scores.

Source of Variation	F-Value (Calculated)	F-Value (Critical)	Decision
Between groups (Pre, Mid, Post)	433.9	3.35	Reject H_0

image (Table 5).

BAS-2 Items Showing Greatest Improvement

Among all BAS-2 items, Item 9 ('I am comfortable in my body') demonstrated the greatest overall improvement, rising from a weighted mean of 1.78 at pre-test to 4.20 at post-test — the highest-ranked item by the study's conclusion. Item 6 ('I feel love for my body') followed at 4.16, with Item 7 ('I appreciate the different and unique characteristics of my body') at 4.12. Four items — Items 2, 3, 8, and 10 — reached a tied weighted mean of 4.02, all achieving the 'Often' level of body appreciation. The convergence of these scores above 4.00 indicates a broad-based, positive shift in body image rather than improvement limited to isolated domains. These findings align with the Cognitive-Behavioral Frame of Reference (Duncan, 2016), which emphasizes that positive behavioral engagement — such as dancing — can catalyze corresponding improvements in thought patterns and

emotional well-being.

Conclusion

This study demonstrates that a structured four-week dance intervention using culturally relevant and empowering music — specifically BINI's Pantropiko and Salamin, Salamin — significantly improved body image and body appreciation among Filipino teenagers with low self-esteem. BAS-2 scores improved from 'Seldom' at pre-test ($M = 1.99$) to 'Often' at post-test ($M = 4.05$), with a statistically confirmed F-value of 433.9, far exceeding the critical threshold. The greatest gains were observed in physical comfort, self-love, and media-independent self-perception of beauty — the very dimensions that were most compromised at baseline.

The findings affirm that dance is not merely a recreational activity but a meaningful therapeutic modality capable of shifting entrenched negative body perceptions. By redirecting attention from appearance to movement, capability, and self-expression, dance empowers adolescents to relate to their bodies with greater kindness and confidence. It is recommended that school wellness centers and community health organizations implement structured dance programs as a primary intervention for improving adolescent body image, particularly among teenage girls in mid-adolescence. Future studies should examine longer intervention durations, more diverse participant populations, and the integration of media literacy components to reinforce the psychosocial benefits of dance.

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