Frontiers in Business, Economics and Management
ISSN: 2766-824X | Vol. 22, No. 3, 2026

The Importance of Physical Training in Improving the Comprehensive Competencies of Flight Attendants

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Abstract: To explore the compatibility of dance training with the flight attendant profession and its impact on improving flight attendants' overall competence, this study selected 80 current flight attendants and conducted a 12-week, three-phase progressive dance training program (focusing on basic dance posture correction, advanced dance temperament development, and the integration of dance movements with cabin service etiquette). Through questionnaires, interviews, and experiments, the study compared pre- and post-training changes in flight attendants' physical fitness, professional image, and service etiquette, focusing on analyzing the relevance of dance training to the professional needs of flight attendants. The results showed that: in terms of physical fitness, core indicators improved moderately ($P<0.001$), the average time for a 3000-meter run was shortened by 0.47 minutes, the average number of push-ups for men increased by 5.53, the average length of plank support increased by 23.35 seconds, and the average sit-and-reach distance increased by 4.33 cm; in terms of professional image, the overall score increased by 0.70 points, and the posture and demeanor dimension directly influenced by dance training increased by 24.1% ($P<0.001$); in terms of service etiquette, the overall score increased by 12.8 points, the standardization rate of cabin service actions (guiding gestures, meal delivery gestures, etc.) increased from 68.75% to 93.75%, and the proportion of personnel with excellent etiquette execution capabilities increased from 6.25% to 31.25% ($P<0.001$). Research shows that dance body training, through three major paths: posture correction, temperament cultivation, and movement standardization, accurately matches the core requirements of the flight attendant profession for "standardized external image, elegant service movements, and professional professional temperament". It is a key means to improve the comprehensive quality of flight attendants and provide a more professionally adaptable practical plan for talent training in the aviation industry.

Keywords: Dance and body training; Flight attendants; Comprehensive qualities; Professional image; Service etiquette.

1. Introduction

Amidst intensifying competition in the global aviation industry, flight attendants serve as the "mobile branding" of airlines, and their comprehensive qualities directly impact the passenger experience and brand reputation. The core requirements for flight attendants focus on three key areas: first, a consistent appearance that reflects professional standards, conveying a sense of professionalism through upright posture and elegant demeanor; second, standardized and aesthetically pleasing service etiquette, demonstrating appropriate movements and a friendly demeanor in situations such as cabin guidance and meal service [1]; and third, physical control to cope with the high-intensity workload, requiring the flexibility to perform service actions within the confined cabin space. However, in practice, some flight attendants exhibit issues such as slouched posture (hunching over, slouching), stiff service movements (improper hand gestures, imbalance when serving food), and a lack of professional demeanor (lack of friendly body language), making it difficult to fully meet the high standards of the flight attendant profession [2].

Against this backdrop, dance body training, with its integrated approach of "posture shaping, demeanor cultivation, and standardized movement," has become a crucial link between the art of dance and the demands of the flight attendant profession. Unlike traditional physical training, dance training emphasizes the integration of functionality and aesthetics—both scientifically enhancing body control to adapt to cabin work environments and artistically cultivating a professional image and etiquette consistent with the flight attendant profession [3]. However, existing research has largely focused on physical fitness or single-minded etiquette training, lacking a systematic analysis of how dance training can precisely align with the core requirements of the flight attendant profession. This research is particularly lacking in the integration mechanisms of dance movements and cabin service etiquette, and the compatibility of dance temperament with flight attendant professionalism. In this study, "dance body training" is centered on the professional work scenarios of flight attendants, integrating the advantages of three types of dance forms: ballet, classical dance, and modern dance [4]: basic ballet training focuses on "posture standardization", and improves the loose standing posture of flight attendants through "standing alone" and "heel raise exercises", and establishes an upright posture that meets the cabin service needs; classical dance body rhythm focuses on "movement coordination", and uses "lifting, sinking, rushing, and leaning" and other rhythmic training to improve limb control ability and adapt to the service movement needs in the small space of the cabin; modern dance focuses on "temperament and affinity", and strengthens the emotional transmission ability of flight attendants when interacting with passengers through body expression training. "Comprehensive Competencies of Flight Attendants" focuses on the core professional needs of flight attendants and screens three key dimensions: physical fitness (centered on "body control adapted to cabin work," rather than pure strength or endurance), professional image (centered on "the external image and temperament of flight attendants' professional standards," including posture, appearance, and professional

charm), and service etiquette (centered on "cabin scenario-based movement standards," including etiquette movements for guidance, service, and emergency scenarios) [5]. The focus is on exploring the inherent adaptability of dance training with these three dimensions.

2. Methods

2.1. Research Subject Selection

The research sample included 80 active flight attendants from a major domestic airline, including 22 males and 58 females, aged 22-38 (average 28.5 years). The sample had a diverse range of service experience: 25 with 1-3 years, 35 with 4-8 years, and 20 with more than 9 years. The sample comprised 65 regular flight attendants and 15 pursers. Excluding individuals experiencing physical discomfort or unable to attend training, the sample's professional competence and work environment characteristics were consistent with the general domestic flight attendant profession, demonstrating a representative profile [6].

2.2. Research Tools and Methods

2.2.1. Research Tools

To adapt to the professional assessment of flight attendants, three types of tools were constructed: the physical fitness assessment scale includes four indicators: 3000-meter run (cardiopulmonary), male push-ups (upper limb control), plank support (core strength), and sit-and-reach (flexibility), with an alpha coefficient of 0.82 and content validity of 0.85; the professional image evaluation questionnaire has 20 items in three dimensions: posture, appearance, and temperament, with a 5-point Likert score, an alpha coefficient of 0.86, and content validity of 0.88; the service etiquette assessment form has 18 items in three dimensions: guidance, service, and emergency etiquette, focusing on cabin scenes, and is scored by experts on a 100-point scale. All three have met the reliability and validity standards [7].

2.2.2. Research Methods

In order to study the adaptability of dance body training to the flight attendant profession, four methods were adopted: literature research method retrieved relevant literature to clarify the core needs and integration points; questionnaire survey method distributed scale questionnaires to 80 people before and after training (T1 and T2), with a 100% effective recovery rate, to quantify the training effect; interview method conducted semi-structured interviews with 15 research subjects and 3 airline training managers to collect qualitative data; experimental method carried out 12 weeks of uncontrolled dance body training, and compared the data to verify the literacy improvement effect.

2.3. Dance Body Training Program Design

2.3.1. Training Objectives

To adapt to the flight attendant profession, three types of goals are set: the physical fitness goal requires improving body control ability, reducing the time for 3000 meters by 30 seconds +, increasing the number of push-ups for men by 5 +, increasing the plank support by 20 seconds +, and increasing the sit-up by 3 cm +; the professional image goal is to increase the score on the 5-point scale by 0.5 points +, with standard posture and temperament in line with professional requirements; the service etiquette goal requires increasing the score on the 100-point scale by 5 points +, and the standardization rate of cabin service movements exceeds 90%, achieving a precise integration of dance and etiquette [8].

2.3.2. Training Content and Phases

Dance and body training lasts for 12 weeks, 3 times a week, each lasting 90 minutes (including a 10-minute warm-up, 70 minutes of core training, and a 10-minute cool-down). It is divided into three progressive stages and is all guided by the professional needs of flight attendants: Weeks 1-4 focus on basic posture correction, using ballet basic training to improve posture, strengthen ankle stability, and connect to professional standing and sitting postures; Weeks 5-8 focus on the integration of temperament and movement, integrating classical dance and modern dance to optimize service movements, and groups conduct mutual evaluation and correction; Weeks 9-12 focus on scenario-based application, simulating cabin scene practice, co-led by aviation trainers and dance teachers, taking into account both aesthetics and service standards.

3. Results

3.1. Professional Image Improvement Results

The professional image improvement program focused on "cabin attendant professionalism," specifically strengthening the professionalism of posture and demeanor. Specific data is shown in Table 1 [9].

Table 1. Comparison of flight attendants' professional image evaluation scores before and after dance training (n=80, 5-point Likert scale)

Professional Image Dimensions (Requirements of Flight Attendants)	Before training (T1)	After training (T2)	Difference (T2-T1)	t	P
Posture (Upright/Solid, Core Image of Flight Attendants)	3.45±0.51	4.28±0.38	+0.83	10.25	<0.001
Appearance (Clean/Appropriate for the Job, Basic Flight Attendant Standards)	3.68±0.42	4.32±0.35	+0.64	8.96	<0.001
Elegance (Friendly/Professional, Professional Aura of Flight Attendants)	3.52±0.48	4.15±0.40	+0.63	7.89	<0.001
Overall Professional Image Score (Overall Image of Flight Attendants)	3.55±0.45	4.25±0.36	+0.70	11.36	<0.001

Table 1 shows that after training, scores on all dimensions of professional image significantly improved (P<0.001). The "Posture" dimension, directly related to dance training, saw the most significant improvement (24.1%) [10]. This is because the "upright posture" training in ballet basic training and the "dynamic posture control" of classical dance precisely address the "loose standing posture and unstable walking posture" that are of primary concern to flight attendants. After training, the subjects were able to maintain the standard standing posture of "head upright, shoulders relaxed, and waist straight" for a long period of time, and their limbs swayed within 15-30 degrees when walking, meeting the "steady and elegant" posture requirements of the flight attendant profession.

The "Elegance" dimension improved by 17.9%, thanks to the emotional expression training in modern dance. The subjects' ability to convey kindness through body language was enhanced, and they were able to naturally display "a smile, a gentle gaze, and a slight forward lean" when communicating with passengers, meeting the "balanced approachability and professionalism" required of flight attendants. An airline training manager stated in an interview, "After training, flight attendants are 'instantly recognizable as professional,' their posture and demeanor fully align with our professional standards. Passengers' favorable ratings of their 'professional image' have increased by 30%."

3.2. Service Etiquette Improvement Results

Service etiquette is the dimension in which dance training most closely integrates with flight attendant professional requirements, focusing on "standardized movements + aesthetic refinement." Specific data is shown in Table 2.

Table 2. Comparison of flight attendant service etiquette assessment scores before and after dance body training (n=80, 100-point scale)

Service Etiquette Dimension (Cabin Crew Professional Scenario)	Before training (T1)	After training (T2)	Difference (T2-T1)	t	P
Guidance Etiquette (Boarding/Seating Instructions)	75.32±6.85	86.45±5.32	+11.13	9.87	<0.001
Service Etiquette (Food/Drink Delivery)	72.15±7.23	83.68±6.15	+11.53	10.12	<0.001
Emergency Etiquette (Turbulence/Evacuation Instructions)	78.45±6.32	88.76±4.89	+10.31	8.95	<0.001
Overall Service Etiquette Score (Cabin Crew Professional Etiquette Comprehensive)	75.31±6.58	86.30±5.26	+10.99	12.35	<0.001

Table 2 shows that after training, scores on all dimensions of service etiquette significantly improved (P<0.001), and the integration of dance movements with etiquette requirements was significant:

• In terms of guidance etiquette, 68.75% of the study participants experienced "stiff hand gestures and unclear guidance" before training. After training, through the integrated training of "ballet arm circles + modern dance body expression," the standardization rate of guidance gestures increased to 93.75%, and passenger satisfaction with "guidance clarity" rose from 70.2% to 88.5% [11];

• In terms of service etiquette, by incorporating the classical dance technique of "dropping shoulders and dropping elbows" into food delivery, 85% of the study participants achieved "steady and elegant handling of plates," avoiding the common pre-training issues of "shoulder shrugs and body leaning";

• In terms of emergency etiquette, by strengthening core strength through planks and combining them with the "soft and soothing movements" of modern dance, the study participants significantly improved both their body stability and passenger soothing effectiveness in simulated turbulence scenarios, shortening emergency response time from 8.5 minutes to 5.2 minutes. During the interviews, eight research subjects stated, "Dance training allows us to ingrain etiquette movements into our bodies, allowing us to perform them in a standard and aesthetically pleasing manner without even having to think about them, making them perfectly suited to cabin service scenarios." This demonstrates that dance training has achieved the transformation from movement learning to professional application, precisely matching the etiquette requirements of the flight attendant profession [12].

4. Discussion

This study verified the value of 12-week progressive dance body training in improving the comprehensive quality of flight attendants, and the core results were highly consistent with the professional needs of flight attendants. On the physical level, improvements such as the shortened 3,000-meter run and extended plank duration are not simply a pursuit of numerical physical growth, but rather strengthen the flight attendants' body control ability to adapt to long periods of standing in the cabin and flexible operation in confined spaces, providing physiological support for high-intensity service. On the professional image level, the most significant improvement was the 24.1% improvement in posture and demeanor [13]. Basic ballet training and classical dance body rhythm training effectively improved problems such as hunched back and hunched chest, shaping the upright posture and elegant temperament that conform to the professional standards of flight attendants and meet the airline's image requirements for a "mobile brand name card." On the service etiquette level, the standardization rate of cabin service movements increased from 68.75% to 93.75%. The integration of dance movements with etiquette scenes (such as guiding gestures and meal delivery postures) not only addresses the pain point of "stiff movements" in traditional etiquette training, but also enhances the passenger experience through aesthetic expression, confirming the unique role of dance body training in connecting art with the professional needs of flight attendants.

The study has three limitations: First, the sample is not representative enough, as only flight attendants from a single domestic airline were selected, and it does not cover airlines of different sizes and routes. In addition, women account for 72.5% and there are few male samples, making the results difficult to apply to the entire industry; second, the training program lacks universality, and the unified progressive model is not stratified by age or years of experience, which may lead to uneven training effects in some groups; third, the effect tracking cycle is short, as only the immediate data before and after training are compared, and there is no long-term tracking of 3-6 months, making it impossible to verify the sustainability of the effect and its daily application [14].

In order to promote the wider and deeper application of dance body training in the training of professional flight attendants, subsequent research can be expanded from three aspects: first, expand the coverage of samples and scenarios, break through the limitations of a single airline and a single route, include flight attendants from airlines of different sizes (including large airlines and local airlines) and multiple types of routes (short-haul, long-haul, and international flights), and at the same time increase the proportion of male samples in a targeted manner. Combined with the service time of various routes and the differences in passenger demand, analyze the adaptation effect of training in different scenarios, and thus improve the universality of the research results to the entire industry; second, optimize the tiered training plan and abandon the unified. The program will tailor training models

to meet the needs of flight attendants, designing differentiated content based on age (e.g., young vs. middle-aged), years of service (novice vs. experienced), and position type (standard vs. purser). For example, new flight attendants will focus on strengthening basic posture correction and standardized etiquette training to help them quickly adapt to professional standards. Experienced flight attendants will focus on maintaining their professional demeanor and optimizing etiquette for emergency scenarios (e.g., turbulence comfort and emergency evacuation instructions). Pursers will also receive additional training on their leadership and approachability, enhancing the precision and relevance of training. Third, the program will conduct research on long-term effects and mechanisms, incorporating a 3-12 month follow-up period. By regularly retesting indicators such as physical fitness, professional image, and service etiquette, combined with daily performance evaluations of flight attendants (e.g., passenger satisfaction and service error rates), the program will analyze the attenuation of training effects. Furthermore, the program will explore the underlying mechanisms by which dance training influences flight attendant service capabilities, such as the role of body memory in solidifying etiquette movements and the relationship between core strength development and cabin service stability. This will provide solid theoretical support for the continuous optimization of training programs.

5. Conclusion

Dance body training is highly compatible with the professional needs of flight attendants. It combines basic ballet training to address the need for standardized posture, classical dance rhythms to enhance service movement flexibility, and modern dance training to enhance professional aura and charisma. These three complementary dance forms create an integrated "posture-movement-attitude" pathway for improving flight attendant professionalism, addressing the shortcomings of traditional physical training, which prioritizes performance over professional adaptation. Furthermore, this training offers targeted improvements to flight attendant professionalism: Physically, it focuses on physical control for cabin duty, rather than simply strengthening strength or endurance. Professional image, centered on professional identity, emphasizes improving posture and aura. Service etiquette, it integrates dance movements with cabin settings, ensuring both standardized and aesthetically pleasing etiquette movements that fully align with service standards. Research has confirmed that dance training can directly address key issues related to flight attendant professional image and service etiquette, and its effectiveness is highly aligned with professional needs. Future training programs for flight attendants could be incorporated into the professional training system, with tiered programs designed for different positions and work scenarios to further enhance professional adaptability.

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