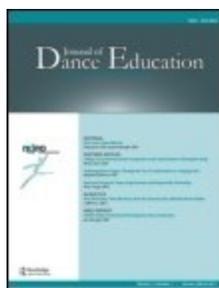


"This is an Accepted Manuscript of an article published by Taylor & Francis in JOURNAL OF DANCE EDUCATION on 03 Feb 2022, available online: <http://www.tandfonline.com/> <https://doi.org/10.1080/15290824.2021.2004604>



From the Wings to the Stage and Beyond; Performance Anxiety and Flow in UK Vocational Dance Students

Journal:	<i>Journal of Dance Education</i>
Manuscript ID	IJOD-2021-0021.R3
Manuscript Type:	Feature Article
Keywords:	Thematic analysis, Optimal performance, Post-performance, Somatic anxiety, Cognitive anxiety

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PERFORMANCE ANXIETY AND FLOW IN DANCE STUDENTS

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**From the Wings to the Stage and Beyond; Performance Anxiety and Flow in UK Vocational
Dance Students****ABSTRACT**

Professional dancers have described high levels of performance anxiety while also experiencing flow on stage. However, such research tends to capture one period of time in the performance experience and rarely focuses on vocational dance students. The current study samples vocational dance students at a UK performing arts school and captures their cognitive, somatic and emotional experiences from pre- to post-performance. Eleven interviews were conducted with female students aged between 15 and 17 years. Thematic analysis was employed and three themes identified: Facilitative and Debilitative Anxiety in the Wings, Constructions of Anxiety and Flow on Stage, and After the Show; the Highs and the Lows. Findings produced an understanding of the psychological journey from pre- to post-performance. Students have the potential to manipulate their cognitions to facilitate flow suggesting that dance schools can implement psychological techniques to manage anxiety and increase flow, thus enhancing well-being and performance.

Keywords: Cognitive anxiety, Optimal performance, Post-performance, Somatic anxiety,
Thematic analysis

Introduction

Performance anxiety is the experience of anxiety symptoms in high pressure situations where the individual is expected to produce an optimal performance. Consideration of performance anxiety in dancers is important since it can impact negatively on well-being (Kenny, Driscoll, and Ackermann 2014) and dance performance. Such anxiety is considered a multidimensional concept that is divided into somatic and cognitive symptoms (Butt, Weinberg, and Horn 2003). Somatic symptoms, such as increased heart rate and perspiration, are produced from physiological responses whereas cognitive symptoms are difficult and challenging thoughts that undermine the individual's confidence in their performance. It is proposed that these two types of symptoms are related yet distinct (Butt, Weinberg, and Horn 2003).

Performance anxiety is a transient state that varies across time from the build up of a performance until it's end, peaking just before the performance begins (Hagan, Pollmann, and Schack 2017; Sutherland and Southcott 2020). Experienced dancers will be aware of such temporal fluctuations but both the external environment, including subjective judgments of ability and competition (Monsma and Overby 2004), and dancers' internal characteristics, such as perfectionism (Nordin-Bates et al. 2011), may impact on the intensity of the anxiety response. Dancers with higher perfectionism and higher somatic and cognitive anxiety experience more negative imagery, such as falling over during a performance, (Nordin-Bates et al. 2011) that may make anxiety more difficult to manage. Nevertheless, dancers expect to experience some anxiety and may find the experience facilitative for their performance. Somatic anxiety has been described as more conducive to performing, since it is perceived to increase energy, through the production of adrenaline, whereas cognitive anxiety is perceived as more debilitating by professional ballet dancers (Walker and Nordin-Bates 2010). External factors, such as the audiences' focus on particular dancers, may also impact on dancers' experiences of performance anxiety. Principal dancers feel a greater need to prove themselves and are more exposed on stage, and hence describe

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more anxiety, than those in the corps de ballet who are more hidden when dancing in a larger group (Walker and Nordin-Bates 2010).

Anxiety is intimately associated with flow since it can inhibit flow and hence optimal performance (Nakamura and Csikszentmihalyi 2014). Flow is characterized by enjoyment, feeling in control, merging of action and awareness so that one no longer is aware of the self as separate from one's actions, being utterly absorbed in the activity that leads to a loss of self-consciousness, a change in perception of time, and being intrinsically motivated to engage in the activity, also known as the autotelic experience (Csikszentmihalyi 1990). Dance is an activity that can elicit flow (Nakamura and Csikszentmihalyi 2014) and this is particularly important since experiencing flow can increase well-being (Fritz and Avsec 2007) thus countering the negative impact of anxiety.

Flow is considered a way of achieving optimal performance. To elicit flow the challenge must be balanced by skills the individual possesses to meet the challenge, the individual must have clear goals, and they should receive immediate and unambiguous feedback to establish achievement of their goals, all aspects that are achievable through dance (Csikszentmihalyi 1990). Dancers do indeed experience flow (Hefferon and Ollis 2006; Thomson and Jaque 2012, 2016). Professional dancers emphasized the internal enjoyment of dance as key to their flow experience, they experienced a loss of self-consciousness, and self-doubt in their abilities was replaced with confidence that their skills could meet the challenges presented (Hefferon and Ollis 2006).

Several factors enhance or increase the chances of experiencing flow. A key focus in dance is the training of the body to achieve movement that is challenging and aesthetically pleasing, which can potentially enable flow (Csikszentmihalyi 1990). Deliberate movement in harmony to music often elicits the intense enjoyment required for flow (Csikszentmihalyi 1990). Moreover, for professional dancers it is the connection with music that enhances flow, especially when the music and choreography coalesce (Hefferon and Ollis 2006). The music can induce flow itself but can also enable flow through facilitating connection with a character (Panebianco-Warrens 2014).

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Group work can enhance the flow experience for dancers when group members have a trusting and close connection (Łuczniak, May, and Redding 2020). However, Panebianco-Warrens (2014) found dancing solo was the most common method of enabling flow in ballet dancers. Communication between teacher and student can also impact on flow for the student. In sports, positive performance feedback from coaches can enable flow for students possibly due to increases in self-esteem and self-confidence in the ability to attain goals (Bakker et al. 2011). Feedback also emerges through the energy radiating from an audience, although an audience can also cause distractions that reduce the loss of consciousness experienced from flow (Hefferon and Ollis 2006).

Other factors can impede flow. Flow is achieved through a subjective balance between a person's perceived skills and the perception of the challenge being enough to prevent boredom but not too challenging to create anxiety (Csikszentmihalyi and Nakamura 2014). For professional dancers, excessive repetition of the dance can lead to the challenges of dancing the piece not adequately matching their skills, making flow more difficult to achieve (Hefferon and Ollis 2006; Walker and Nordin-Bates 2010). Dancers high in anxiety often experience less dispositional flow (Thomson and Jaque 2012). This mirrors research on musicians where a significant negative relationship between performance anxiety and flow proneness has been identified (Kirchner, Bloom, and Skutnick-Henley 2008). However, Kirchner, Bloom, and Skutnick-Henley (2008) suggest that performance anxiety does not entirely negate the possibility of experiencing flow as anxiety and flow can exist concurrently.

Since dance is a prime example of an activity that elicits flow (Csikszentmihalyi 1990) and performance anxiety in dancers has been found to be common (Monsma and Overby 2004), it is pertinent to study dancers to understand the interplay between performance anxiety and flow. Tracking anxiety and flow from pre- to post-show provides a unique contribution to the dance literature, since post-show experiences are rarely considered. Little research on flow has been conducted with dancers and what has been conducted primarily focuses on professional dancers.

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This study focuses on vocational dance students in the UK. Since these students are training for a career in dance, an understanding of the relationship between performance anxiety and flow will enable dance schools to empower students to manage their anxiety and facilitate flow to enhance well-being and performance. Although students encounter various performance activities, this study focuses on shows since they most closely reflect the predominant performance experience of professional dancers. An understanding of these experiences during training can enable students to manage anxiety and enhance flow prior to professional careers where continued performance anxiety can potentially end promising careers.

Capturing flow in performance settings is challenging. Self-report methods, such as experience sampling, are not possible as dance students cannot be interrupted during a performance and school rules do not allow for the completion of measures post-performance. Observation of flow states (Tordet et al. 2021), is ineffective since dance students are performing a role and not expressing their own emotional or psychological experience. Therefore, this study, which is part of a larger mixed methods study, used qualitative interviews that enabled students to reflect on their anxiety and flow experiences over time to gain a considered, longitudinal understanding of their experiences. The qualitative research question for this study is “what are the physical, cognitive and emotional experiences for female vocational dance students from pre- to post-performance?”

Method

Research Design

The researchers utilized a qualitative research design using semi-structured interviews and employing reflexive thematic analysis to analyze the data. The researchers take the position that concepts of flow and performance anxiety exist as defined in the academic literature but specific experiences of these phenomenon are situated within the individual and influenced by the social context. Therefore a contextualist position is taken (Braun and Clarke 2013).

Participants

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Participants were 11 female dance students attending a vocational performing arts school in the UK. This is an acceptable number of participants for a qualitative thematic analysis (Braun and Clarke 2013) which allowed a rich data set that achieved data saturation. Ages ranged from 15 to 17 years (\bar{x} = 16.61 years, SD = 0.67). All participants received weekly classes in ballet, contemporary and jazz dance. The participants had danced at the school for between less than one year and five years. All participants had danced for several years at local dance schools before attending vocational school. The first author visited dance classes throughout the academic year to advertise participation in the interviews. Both authors separately conducted interviews. The authors provided pseudonyms for all participants to preserve anonymity.

Data Collection

Ethical approval was gained from the first author's academic institution and both researchers abide by the British Psychological Society Code for Human Research Ethics (2014). Semi-structured interviews were conducted across a UK academic year (September to July). All interviews were conducted face-to-face at the school in a private room and recorded on a digital voice recorder. Interviews lasted between 34 and 67 minutes (\bar{x} = 50.33 minutes). Participants were initially asked about their dance journey and how they felt about dance. Questions then focused around performance experiences in terms of their thoughts, emotions and physical feelings. They were also asked about methods of coping with performance anxiety and factors that reduced or increased performance anxiety. No questions specifically focused on flow. Interviews were transcribed manually by the second author.

Data Analysis

Data was analyzed using reflexive thematic analysis in line with Braun and Clarke's (2006) and Braun et al.'s (2018) guidelines. This analysis was chosen as the researchers take the stance that there are multiple realities to experiences of anxiety and flow and wanted to explore the meaning created from these experiences. Initially the researchers familiarized themselves with the transcripts

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through repeated readings. This led on to first order coding, across the entire data set, in relation to the research question. These preliminary codes were brought together to create emergent themes which were further reviewed and connections across emergent themes identified to produce superordinate themes, which were subsequently named. To enhance analytic rigor, the second researcher took a critical approach to the first researcher's interpretations of the data. Natural generalizability (Smith 2018) was established through discussion of the findings with dance professionals who confirmed similar experiences for themselves, and in some cases of observations of the students they taught.

Analysis and Discussion

Three themes were uncovered; Facilitative and debilitating anxiety in the wings, Constructions of anxiety and flow on stage, and After the show; the highs and the lows (Fig. 1).

INSERT Figure 1 HERE

Facilitative and Debilitative Anxiety in the Wings

Most participants described performance anxiety peaking in the wings "The worst thing is a few minutes before you go on, that waiting" (Susan). For some, such as Claire and Abbie, it was the only point at which they felt nervous while for others, like Amy, the anxiety built up over a longer period of time culminating in enhanced feelings of anxiety in the wings: "I would say it's roughly about two weeks before the actual performance whatever it is that the nerves kick in, it becomes real..." Such responses mirror research on hockey players, who reported higher levels of anxiety before a competitive game (Butt, Weinberg, and Horn 2003), and professional ballet dancers (Walker and Nordin-Bates 2010). According to Csikszentmihalyi (1990) this could suggest that students perceived their dance skills as inadequate to the challenge of the performance.

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However, since anxiety can be facilitative (Walker and Nordin-Bates 2010), anxiety in the wings may indicate preparedness to perform.

Somatic Anxiety

Somatic anxiety was a common experience. Participants described “butterflies” (Joanne and Abbie), “my heart’s in my throat” (Amy), and a “tummy drop” (Penny). Some participants identified that physical aspects of anxiety were important since they associated somatic anxiety with a natural surge of adrenaline that would improve their performance:

I think nerves are good, it’s like adrenaline kicking in. Which I know is going to help me get through the performance...Just giving me the last bit of energy for the last bit of the dance which I struggle with. (Lora)

These positive interpretations may be a consequence of dancers frequently experiencing somatic symptoms, through regular physical exertion from dancing, that reflect physical symptoms of anxiety, such as increased perspiration and elevated heart rate (Williams et al. 2016). Such symptoms then become less frightening when experienced due to anxiety. Professional ballet dancers also describe somatic anxiety as increasing energy as well as improving concentration (Walker and Nordin-Bates 2010). Likewise, in the current study, somatic anxiety was believed to improve mental focus “it does help me like not relax too much once I’m on, so my mind doesn’t wander, I’m very like focused on what I’m doing cos I’ve been so nervous for it” (Amy). Thus, somatic anxiety was constructed as facilitative by the female dancers.

Cognitive Anxiety

Cognitive anxiety was also highlighted. Wendy’s cognitive anxiety focused on costume malfunctions:

Something I think about actually if I’m standing in the wings right before I go on stage, I always worried that I’d forgotten my costume so I always think ‘Ahh have I got the right shoes on, ahh is my hair right, am I wearing the right costume, am I in the wrong costume, is

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there a hairband on my wrist by accident? Do I have lipstick on me, is my mascara gone everywhere?’ (Wendy)

Here Wendy concentrates on environmental aspects over which she can exert some control. This aligns with professional dancers who found a lack of control created further anxiety (Walker and Nordin-Bates 2010). While Wendy focuses on her costume Amy focuses on elements of her performance on stage which may feel less in her control:

Just before I go on its very much like every thought every thought that I could have in my head is just spinning around. Like ‘what if...’ They’re normally quite negative as well. ‘What am I gonna do wrong’ or ‘what if I trip over someone on this bit’ or whatever.

Davina describes friends who fear they have forgotten the dance:

Everyone always gets these blanks beforehand its quite common and I think especially on first shows and stuff that’s when you get completely blanked out I guess and I don’t know if that’s to do with nerves, no definitely is to do with nerves.

Unlike somatic anxiety, participants did not describe their cognitive anxiety as facilitative to performance, which mirrors the findings from professional ballet dancers (Walker and Nordin-Bates 2010). However, Davina normalizes the experiences when she includes “everyone” as experiencing blanks. Normalizing anxiety often reduces its occurrence (Newbold, Hardy, and Byng 2013).

However, this does not occur with the dancers in this study. The descriptions of cognitive anxiety suggest a sense of lack of control over their situation which will increase anxiety and is likely to reduce flow during the performance (Hefferon and Ollis 2006). One mitigating factor on levels of cognitive anxiety may be the number of previous shows performed, as suggested by Davina, due to familiarity with the role to be danced (Walker and Nordin-Bates 2010).

Managing Anxiety

The dance students used a variety of techniques to manage their anxiety in the wings.

Willow described using mindfulness:

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4 Now when I'm nervous just before I go on stage I can take myself out of the situation and I
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6 know that I'm being, I can tell my symptoms are just nervous symptoms so I can recognize
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8 how I feel and tell myself and I think that's really helped me a lot because since then I
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10 haven't gone out on stage and forgotten choreography, I haven't had that panic on stage
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12 because I've had the time before to sit down and breath for a few seconds and just be in the
13
14 present moment and that's really helped.
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18 Mindfulness has been effective in controlling performance anxiety in musicians and sports people
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20 (Bühlmayer et al. 2017; Thomson et al. 2011) and Willow's quote suggests this may be an effective
21
22 intervention for vocational dance students in both managing anxiety and enhancing performance.
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25 The creation of such a space can enable self-reflection on the escalation of anxiety symptoms
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27 (Santafé and Troccoli 2020) leading to acceptance of such occurrences. Other suggested methods of
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29 reducing anxiety included cognitive techniques, such as distraction by thinking about "work to do
30
31 tonight" (Penny), physical techniques, such as "shake my body out to release tension" (Penny), and
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33 rehearsal "I just go over the steps just to make sure I don't forget it and I'm like lets go" (Davina).
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35 These techniques are reflective of those used by professional dancers and, when effective, can
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37 create a mental state conducive to flow (Hefferon and Ollis 2006).
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41 This theme captures the high levels of somatic and cognitive anxiety experienced in the
42
43 wings. While somatic anxiety is seen as facilitative to the performance cognitive anxiety is
44
45 perceived as debilitating. Participants tended to dichotomize somatic and cognitive anxiety. Using
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47 embodied practices could facilitate greater awareness of somatic experiences and their impact on
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49 cognition that would enable management of performance anxiety (Klein, Bayard, and Wolf 2014)
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Constructions of Anxiety and Flow on Stage

Dissipating the Anxiety

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55 Several participants described anxiety for the first few seconds of being on stage:
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PERFORMANCE ANXIETY AND FLOW IN DANCE STUDENTS

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4 For me it's kind of, when I get on stage I'm still nervous, I'm still a little bit. Its maybe 15
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6 or so seconds into the piece that I feel in my element and I start to, not really care. (Susan)
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8
9 One aspects of the environment that enhanced nervousness was lack of music. Penny stated
10
11 that "walking on in silence" was the worst feeling however once the music begins the anxiety
12
13 reduces due to feelings of normality that the music engendered. This was reiterated by Lora and
14
15 Abbie who identified that "once the music's on its fine because you've practiced it so its just
16
17 muscle memory." Previous research demonstrates that music can facilitate flow (Jackman et al.
18
19 2019), and thereby reduce anxiety, especially if the dancers identify a connection with the music
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21 (Hefferon and Ollis 2006). However, rather than forming a connection, the music appeared to bring
22
23 participants back to the normality of dancing and to act as a cue to engage in the dance.
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25

26
27 A number of participants were aware of the audience while dancing on stage. For Lora this
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29 enhanced feelings of nervousness but for Penny seeing who was in the audience was something she
30
31 enjoyed doing. The presence of an audience can increase both positive and negative emotions in
32
33 dancers (Shikanai and Hachimura 2014). Penny later describes this ambiguity when she states "if
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35 my family are all there I feel more pressure to get it right and if I don't know anyone in the
36
37 audience I think 'oh I can have fun this time'" thereby suggesting the impact of the parental
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39 motivational climate. Students whose parents create an atmosphere of success associated with
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41 comparison with others and mistakes being unacceptable may experience greater performance
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43 anxiety (Schwebel, Smith, and Smoll 2016). Also, individual differences, including a heightened
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45 need to please, may impact on the pressure experienced when family are present.
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51 Several dance students felt that having their performing arts peers in the audience was
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53 particularly stressful:

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55 If its, actually dancing in front of friends like peers can be a lot more nerve wracking
56
57 because you think that or maybe not your friends but certainly other people in your year at
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59 school, say I have to do a solo in front of people also in [sixth form] but they're on [another]
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4 course for example, because you think, maybe they don't know so much about dance so
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6 they'll quickly single out who they think is the better dancer, they'll then talk about it round
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8 school, they'll then talk about you they'll say 'oh she was good' or 'she wasn't good.'

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10
11 (Wendy)

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13 Thus perceived critical judgments from the audience can enhance negative aspects of performance
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15 anxiety. Furthermore, lack of feedback from the audience can trigger doubts about ability, which
16
17 may increase anxiety:
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19
20 So for school performances they were all cheering before and after, which was great. But
21
22 going from a school performance to a public performance when they're very very formal
23
24 and they just clap and nod their heads, which is lovely, but you're like 'oh did I do
25
26 something wrong?' It, just like, the atmosphere is very different. (Lora)

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28
29 In Hefferon and Ollis's (2006) study professional dancers considered the relationship
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31 between the audience and the dancers as central to enabling flow. For female dance students in this
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33 study their non-dance school peers, as audience members, may reduce anxiety during the
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35 performance, by establishing a rapport between the audience and the dancers, and potentially
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37 enabling flow, but may increase anxiety before and after the performance through perceived
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39 judgments about the ability of the dancers. Thus, dancers' cognitive interpretations of the social
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41 environment can lead to enabling or constraining their performance.
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46 Once dancing on stage, for many performance anxiety dissipated, even if they came off
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48 stage but later continued performing. Amy indicated that if flow has been achieved returning to the
49
50 stage during a performance became more manageable "I think by that point once you've been on
51
52 you're in the zone a bit." Penny suggested that the ease of going back on stage is due to initial
53
54 feedback gained "I think the difference is going back on you know you've already done it so its fine
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56 so then I feel I'd be more excited to go back on." Meaningful feedback during dance can be gained
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58 through a focus on the movement of the body, which when perceived as positive acts as a reward
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that enhances intrinsic motivation and is an indicator of flow (Csikszentmihalyi, Graef, and Gianinno 2014).

This sub-theme illustrates that anxiety induced in the wings can transfer initially onto the stage. Music and audience reaction can impact positively by reducing the apprehension felt or negatively by perceiving judgments from valued audience members. Moreover, positive feedback from the audience and the dancers' awareness of their body's performance can enable flow.

Meanings of Flow on Stage

Challenge, goals and feedback. For flow to occur three conditions should be met; there is a balance between the challenge presented and the skills the individual perceives themselves to possess, there are clear goals, and the individual receives immediate and unambiguous feedback that indicates achievement of their goals (Csikszentmihalyi 1990). The anxiety students described indicated the performance was a challenge yet none of them suggested that they could not meet the challenge. Dancers have the goal of technique, for example achieving the steps required while maintaining good posture, turnout, etc, and the goal of performance through embodying a character and/ or expressing the appropriate emotions and feel of the piece. Feedback comes from the physical feel of the body while dancing and achievement of the correct moves along with the response from the audience, other dancers, and self reflection. Although participants described concern about their technique they constructed narratives that diminished these concerns when on stage by valorizing performance over technical skills. The dancers were therefore active agents in manipulating their challenges and goals. Joanne employed the expectations of the audience to validate her account:

I've learned that actually at the end of the day its not about who has the best technique, who can get their leg the highest, who has the flattest turnout that kind of thing. When you're on stage and you're performing, there are people watching that don't know anything about ballet, they've just come to watch for their own enjoyment, and actually they're going to be

PERFORMANCE ANXIETY AND FLOW IN DANCE STUDENTS

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drawn to the people that are musical, that can perform.

Joanne focuses the challenge more on performance than technique, which allows her perceived skills to adequately match the challenge and enable flow. Autotelic experiences of flow are positively related to achievable challenge (Csikszentmihalyi 1990). Joanne places great emphasis on such experiences, which may be facilitated by restructuring the challenge from technique to performance. Moreover, by focusing on her artistry to engage the audience Joanne is directing her attention externally, which may allow her technical skills to be unconsciously processed thus enabling her to focus more on artistic expression (Mornell and Wulf 2019). Davina takes a more passive approach in constructing her narrative but recognizes the benefits of the automaticity of technical skills due to muscle memory “when you perform on stage you don’t think about your technique, it’s your muscle memory that takes over.” Lora indicated that being overly concerned about technique inhibited her enjoyment of the performance and so develops a narrative that reduces concerns about technique but which may enhance flow:

Sometimes I forget all the corrections and I know I should have remembered them, but I just in my head I’m just thinking just perform and dance like you love it, which I do. But I know that sometimes I maybe, I should concentrate more on the technique and I’ve been told by teachers that I need to do that cos the technique goes out.

Externally focused attention can enhance both performance and technical skills as opposed to focusing attention specifically on technical ability as Lora has been advised, which may have no effect on performance or technique (Mornell and Wulf 2019). Thus, dance teachers may benefit from encouraging a focus on attention externally to improve both technical and performance skills.

The autotelic experience. All of the participants recounted some features of flow while dancing despite not being specifically questioned about flow experiences. Thus, all accounts of flow emerged inductively. The autotelic experience was the most common with an emphasis on the pleasure felt when dancing. As Joanne states “because I love performing so much I just feel really

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really happy.” Intense pleasure can act as an internal reward that sustains intrinsic motivation for the activity (Csikszentmihalyi 1990; Csikszentmihalyi and Nakamura 2014). Susan identifies another aspect of intrinsic motivation to dance which is that she does it for herself:

It sounds bad, but it becomes more selfish, you know it’s like it’s no longer about taking in the constructive criticism, it becomes you know ‘I’ve worked for this, you know I’m ready to now enjoy this moment’ and you kind of lose your inhibitions a bit maybe.

Leaving aside the criticism and self-evaluation allows Susan to focus her mental energy on the flow experience (Hefferon and Ollis 2006). Interestingly, Susan perceives choosing to focus on herself as selfish. Selfishness is considered to indicate a lack of femininity (Blue 2017) and when positioned in a highly feminized environment, such as the dance world, may make such sentiments more difficult to express. Thus explaining why this aspect of the autotelic experience was rarely expressed by the participants.

Loss of self-consciousness and transformation of time. Another common flow experience was a loss of self-consciousness, which is similar to the experience of professional dancers (Hefferon and Ollis 2006). Joanne interprets this experience as being in “a fantasy world” where her previous anxiety does not exist. Claire describes a lack of awareness:

Well I don’t really think when I’m on stage, I don’t really know what happens, I just do the dance...I’m just doing the dance and not thinking about anything else...It’s really good, it’s like... I’m just doing it better than I thought I could.

Despite this loss of consciousness, Claire is receiving feedback as she concludes that she is doing well. However, Willow is less aware of receiving feedback:

During the performance I feel a sort of stillness of the world, it doesn’t feel like it’s happening because you’ve rehearsed it so much you’re at a point where it’s in your muscle memory. So when I’m performing, it’s such a cliché, but you’re in your own world. When my parents came to watch the...show, it’s like I didn’t notice that my parents were there at

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4 all. It's all gone from your memory. I can remember very clearly the performance before
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6 and after, but trying to think of actually dancing it in the moment it's hard for me to recall
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8 that memory. It just happened so quickly, the lights are there and you're blinded and it's all
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10 dark and so I'm like now, I'm like 'did I do it right?'

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13 This highlights the degree of consciousness of any feedback received and the ability to act on it in
14
15 the future. Willow also describes another feature of flow; transformation of time. Csikszentmihalyi
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17 (1990) suggests that usually time appears to pass more quickly but for dancers it can slow down.
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19 However, for the participants in this study, who identified a transformation in time, time uniformly
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21 sped up "sometimes you come off stage and you think 'whoa that went so quick and I can't even
22
23 remember what I was thinking'" (Wendy). Loosing a sense of time might impede dancers' ability to
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25 keep in time to the music (Thomson and Jaque 2016). However, there is no evidence that this was
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27 the case for the current sample.
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31
32 ***Merging of action and awareness.*** In descriptions of loss of consciousness, another element
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34 of flow emerges; the merging of action and awareness. This involves becoming completely
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36 absorbed in the activity so that the self is not distinct from the action being executed and is often
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38 accompanied by feeling focused, relaxed and energetic (Csikszentmihalyi 1990). Willow describes
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40 the fusion of mind and body when performing on stage:
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44 It's a really confusing state of being still and calm, and in my mind I think people talk to
45
46 themselves privately when they're on stage but I don't seem to do that, I just kind of tell
47
48 myself 'ok like this is it just go for it.' Its more just thinking about breathing, even in that
49
50 movement and that exercise of that, it's more going back to the mind even though it's your
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52 working body, it really links mind and body so before it's like the sit down quietly and
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54 breathe, and then when I'm on stage it's the physical but still in my head I'm telling myself
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56 to breathe and calm.
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59 Lora equally appears to experience a different connection between her mind and body:
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4 It allows me to ... experience something that I can't normally experience on a day to day
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6 basis. It lets me like imagine different things... It just allows me to do something that I don't
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8 normally do and it allows me to think outside the box and just like relax.
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11 While Willow identifies this mind body connection as an embodied experience, enabling her
12
13 mind to slip into the 'thoughts' of her body, Lora describes her body in flow as being a more
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15 cognitive experience that enhances creative thinking. Greater levels of flow can enhance creativity
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17 (Łuczniak, May, and Redding 2020) and these accounts suggest this occurs through enabling the
18
19 mind to relax and be open to divergent ways of thinking. The above two quotes also indicate a loss
20
21 of reflective self-consciousness, another dimension of flow. In particular Lora describes not being
22
23 herself, which suggests she has lost the concept of self in that moment.
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25

26
27 ***Sense of control.*** The final description of flow related to a sense of control. This is about a
28
29 lack of anxiety around losing control (Nakamura and Csikszentmihalyi 2014). Sarah describes
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31 feeling a sense of control with the caveat that this occurs due to adequate practice:
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33

34 So usually when you're in a performance you will have rehearsed it so much that you feel
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36 quite in control when you're dancing. Its just beforehand that you have to watch for so that
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38 you don't over think things, cos then you're more likely to forget what you're doing or cause
39
40 the nerves to stop you from what you've been practicing.
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42

43 Extensive repetition of the dance can increase a dancer's self-confidence in their skills thus enabling
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45 them to meet the challenge (Hefferon and Ollis 2006). Although excessive practice has been argued
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47 to lead to boredom and hence to reduce flow (Hefferon and Ollis 2006) this was not described by
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49 the dancers in this sample. Inadequate practice will increase anxiety and while there is some
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51 suggestion that flow and anxiety can exist concurrently (Kirchner, Bloom, and Skutnick-Henley
52
53 2008), anxiety has been argued to be antithetical to flow due to differences in the focus of attention
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55 that the two states create (Nakamura and Csikszentmihalyi 2014). Susan supports this
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57 interpretation:
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There have been events where I have been definitely nervous in not a constructive sense in the sense that I feel I have gone on stage and I've not been able to let go and that has made my dancing at times robotic or kind of more reserved than it should be because of that kind of nervous energy.

This sub-theme identifies that female vocational dance students do experience flow when performing. All conditions for flow to occur were met and all dimensions of flow experienced.

*After the Show; the Highs and the Lows**Powerful Emotions*

Female vocational dance students described powerful emotions after the performance.

Initially these emotions were positive:

I love the feeling I get afterwards. Its almost that, I don't know how to explain it umm almost like a drug. And I think it is in that respect, its almost like a release of a chemical, that feeling after something's been building up and suddenly there are all these chemicals and endorphins released and that amazing feeling you get not only on stage, but for an hour afterwards. It's almost like a euphoric feeling I would say, but for me personally I love that but I do also get a drop after that high almost. (Susan)

Joanne and Willow described the feeling as "a bit of a buzz" and Claire described feeling "more relaxed" but also "energized." Flow can enhance feelings of exhilaration and increase self-confidence (Ishimura and Kodama 2009) and feelings of excitement and energy may act as motivators to engage in future dance performances, further facilitating flow experiences. Susan's description when euphoric illustrates the impact of flow on her self-image:

It sounds really bad (laughs) but you know that I'm amazing and you really value yourself and a bit, umm for me I don't think in an egotistical way but naturally when you're doing something you're passionate about, yeah successful not because anyone else views me as successful but for me, that is the biggest success I will ever have, it's not related to money,

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4 to how anyone else views me, it is to do with how I view myself and how I'm able to view
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6 my progress.
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9 However, Susan also identified that the thrill after the performance can be transformed into a crash
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11 that creates more negative emotions. Susan described her thoughts as focused on "self-doubts" at
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13 this time, which highlights the instability of her self-image constructed directly post-show. Joanne
14
15 described feeling low in mood "like a week afterwards, where I get performance blues, I just wanna
16
17 go back and do it again and I get really sad" and Amy experienced similar and likened it to a
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19 bereavement:
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21

22 Its normally a day or two afterwards. You sort of go through a withdrawal because you've
23
24 had so much excitement and so many rehearsals and everything building up to it, and
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26 afterwards its just done, so its kind of like a weird feeling. Its kind of like you've lost a
27
28 person or something.
29
30

31
32 This experience of loss may be due to a lack of direction, as found in adolescent choristers whose
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34 feelings of post-performance loss were more transient when they had future performances to pursue
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36 (Sutherland and Southcott 2020). Loss of camaraderie that develops from preparation and
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38 performance in a show may also explain such feelings (Sutherland and Southcott 2020). Moreover,
39
40 a lack of opportunity for vocational dance students to engage in dance shows and hence flow may
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42 also engender feelings of loss since, although some students described flow in dance assessments
43
44 and auditions, these descriptions were less frequent.
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47

Post-show Anxiety

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50 Unlike many of her peers, Penny didn't experience euphoria after a performance but instead
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52 became aware of tension in her body and focused on her critical internal voice:
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54 I think coming off stage or coming out of an assessment I'm always lost for breath but not in
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56 a worn out way, a bit like 'oh I've done it' and it takes me a while to recognize that I could
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58 have done better cos I always tell myself 'I could have done better.' And I go 'oh I could
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4 have done that, I could have done that' and so I think that that's about 20 minutes
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6 afterwards. When I come out I just think 'oh I've done it' but I get like sweaty palms
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8 again...when you come out you realize I can actually breath now, I can release tension.
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10
11 Here Penny initially describes somatic and then cognitive anxiety even though previously
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13 describing flow on stage. Her negative cognitions focus on self doubt regarding her abilities and it
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15 appears that for Penny flow does not increase self-confidence. Such rumination and self-criticism
16
17 has been associated with high levels of perfectionism in dancers (Eusanio, Thomson, and Jaque
18
19 2014) which can lead to greater cognitive and somatic anxiety (Nordin-Bates et al. 2011).
20
21 Furthermore, perfectionism can reduce the possibility of experiencing flow (Fazlagić and Belić
22
23 2017). Thus, future research should examine flow in relation to perfectionism and anxiety in
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25 dancers.
26
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28

29
30 For some students negative cognitions were only present if they perceived something to
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32 have gone wrong or their physical state impacted negatively on their cognitions:
33

34 After a show... if you're in a really positive mood normally you're fine. No anxiety. If in a
35
36 not maybe, maybe a little bit tired, maybe its that time of the month, you're a little bit
37
38 emotional umm and you, something went a little bit wrong...you just feel upset with yourself
39
40 and so you come out and you just worry. (Wendy)
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43 Since enjoyment is key to the flow experience then this may mitigate any anxiety around
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45 errors. However, a mistake can disrupt the flow process since anxiety will penetrate consciousness
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47 and halt flow. Moreover, physical experiences such as tiredness and menstruation may moderate
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49 the relationship between mood and flow and Willow supported this by describing fatigue as adding
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51 to increased tension for her post-show.
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54 This theme illustrates how flow can create feelings of euphoria post-show which can lead to
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56 feeling low in mood several days later. Tiredness, menstruation, and perfectionism can all adversely
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58 affect the experience post-show. Vocational dance students would benefit from leaning how to
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manage these emotional highs and lows.

Limitations

Participants retrospectively recalled their performance experiences, possibly leading to bias in their responses. However, restrictions around time and school expectations meant capturing participants' flow and anxiety experiences directly before, during or after a performance was not possible. Previous research indicates that retrospective reports of flow do parallel in the moment accounts (Schüler and Brunner 2009). Moreover, asking participants away from the actual experience enables reflection across a variety of occasions. Future research should address these limitations to enable quantitative measures of anxiety and flow to be taken pre- and post-performance to provide validation of results. Another limitation was the lack of male participants. While male and female participants were equally targeted for recruitment no males volunteered. Males are less likely to engage in qualitative research on emotionally salient topics (Affleck, Glass, and Macdonald 2013) and for this study performance anxiety could be perceived as exposing by the male students. Affleck, Glass, and Macdonald (2013) suggest using methods other than interviews, such as photographs, to improve engagement of male participants and this should be considered in future research.

Conclusion

This study is the first, to the authors' knowledge, to qualitatively track experiences of performance anxiety and flow from the wings to the stage and through to post-performance in vocational dancers. Performance anxiety frequently arises backstage but is quickly alleviated once on stage and is replaced by flow. As long as flow is maintained and not hampered by internal characteristics, such as perfectionism or tiredness, which can trigger anxiety, then female vocational dancers experience euphoria followed by a drop in mood post-show.

The participants were not passive recipients of these experiences. They actively manipulated their narratives around their challenges and goals to facilitate flow. However, when a more passive

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approach was taken aspects of perfectionism could introduce anxiety, during or immediately after the performance, thus impacting on flow and/or the feeling of euphoria. Somatic practices, such as the Alexander Technique, Feldenkrais, and Qigong, could help manage performance anxiety and increase flow (Klein, Bayard, and Wolf 2014; Pölönen, Lappi, and Tervaniemi 2019; Stephens and Hillier 2020) and are particularly pertinent for dancers given the embodied nature of dance. Mindfulness, which shares many similarities with somatic practices, can also help manage anxiety (Bühlmayer et al. 2017) and was already engaged in by some participants, which may increase acceptance of this approach. Such practices facilitate an internal mental focus that leads to greater understandings of the body and its interaction with the environment (Pölönen, Lappi, and Tervaniemi 2019) thus providing the dancer with a more integrated understanding of their performance anxiety and flow experiences.

The very essence of flow is to achieve optimal performance (Csikszentmihalyi 1990). It can also enhance long term adherence to activities (Jackman et al. 2019) and improve psychological well-being in adolescence (Bassi et al. 2014). Therefore, vocational dance schools should consider integrating programs that manage performance anxiety and actively develop flow in the dance studio.

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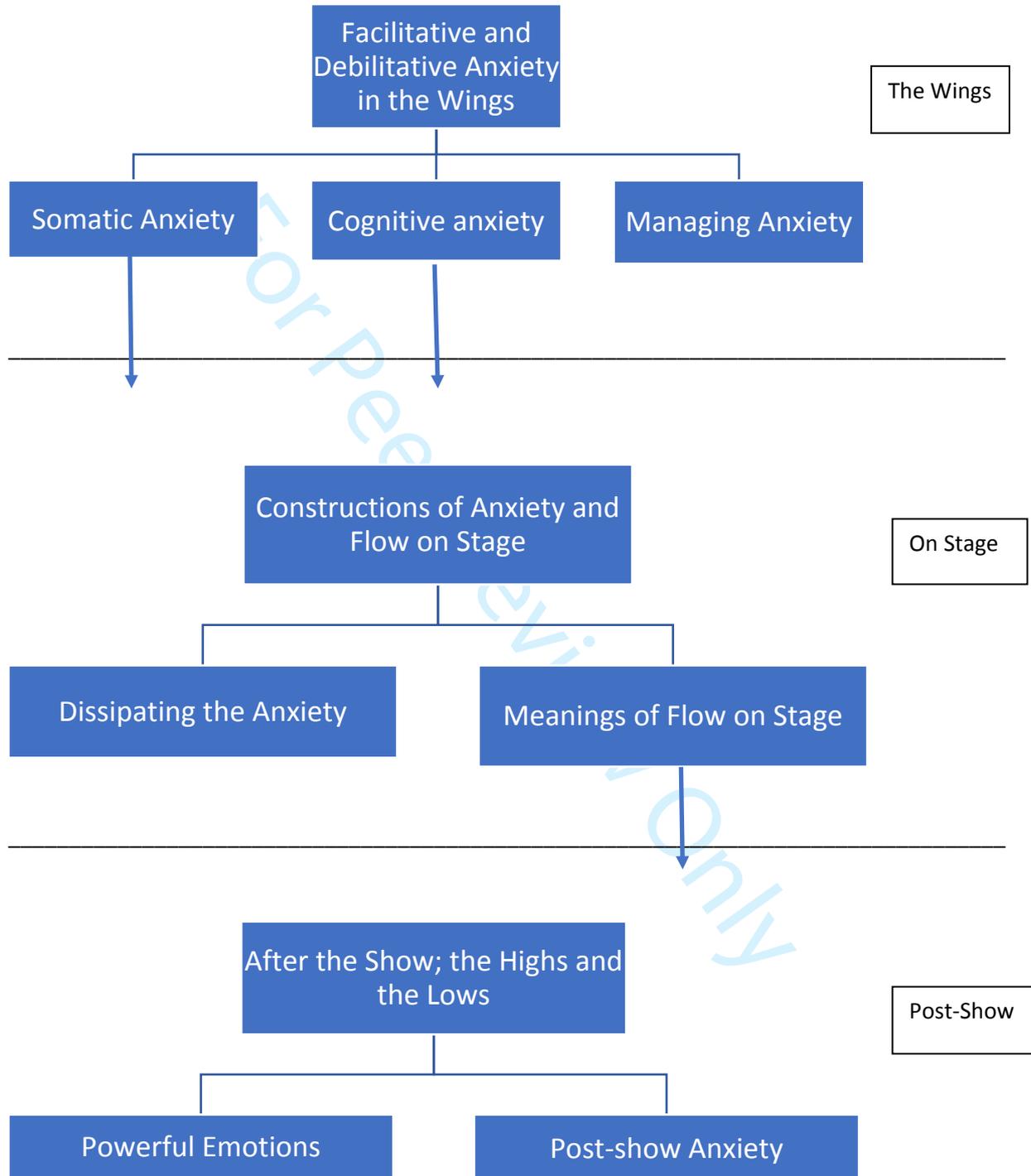
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Figure 1.

Thematic Map of Anxiety and Flow from the Wings to the Stage and to Post Performance



Note: Arrows indicate the movement of anxiety and flow across time periods