

Performance Anxiety Experiences of Professional Ballet Dancers

The Importance of Control

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Abstract

Performance anxiety research abounds in sport psychology, yet has been relatively sparse in dance. The present study explores ballet dancers' experiences of performance anxiety in relation to: 1. symptom type, intensity, and directional interpretation; 2. experience level (including company rank); and 3. self-confidence and psychological skills. Fifteen elite ballet dancers representing all ranks in one company were interviewed, and qualitative content analysis was conducted. Results revealed that cognitive anxiety was more dominant than somatic anxiety, and was unanimously interpreted as debilitating to performance. Somatic anxiety was more likely to be interpreted as facilitative, with the majority of dancers recognizing that a certain amount of anxiety could be beneficial to performance. Principal dancers suffered from higher intensities of performance anxiety than corps de ballet members. Feeling out of control emerged as a major theme in both the experience of anxiety and its interpretation. As a result, prevention or handling of anxiety symptoms may be accomplished by helping dancers to feel in control. Dancers may benefit from education about anxiety symptoms and their interpretation, in addition to psychological skills training incorporating cognitive restructuring strategies and problem-focussed coping to help increase their feelings of being in control.

Anxiety occurs when there is a perceived imbalance between demands placed on a person and his or her ability to meet those demands.¹ For instance, a dancer feeling capable of performing a role is likely to experience less anxiety than a dancer feeling that he or she is unable to reproduce the required skills. Anxiety can have both somatic and cognitive symptoms, where symptoms such as shortness of breath and "butterflies" are somatic, while worries and negative images are cognitive.² Anxiety may also be studied from a trait or state perspective: a trait anxious person is more likely to perceive situations as challenging to his or her ability than those who are not trait anxious. State anxiety refers to anxiety that arises in situations that are perceived to be threatening but quickly dissipate afterward.³ Several authors have found that dancers and other performing artists frequently suffer from both state and trait anxiety.⁴⁻¹¹ Indeed, Bakker concluded that the ballet "subculture" attracts personality types that are particularly susceptible to experiencing anxiety.⁵

Traditionally, anxiety has tended to be thought of as negative due to its potentially detrimental impact on

performance,¹² but research in sport shows that anxiety can be understood (and measured) in terms of both its intensity and the way it is interpreted (i.e., its direction¹³). Thus, anxiety may be interpreted as being either facilitative or debilitating. There is clear value in researching direction, because it can have a greater impact on performance than symptom intensity.^{12,14,15}

Three studies have investigated dancers' anxiety using the same questionnaires typically used in sport (the CSAI-2² and the CTAI-2¹⁶). Notably, they have all done so as part of research into imagery, and so their primary aim has not been to describe dancers' anxiety. Still, it may be gleaned from their descriptive data that, on average, ballet dancers experience moderate levels of state anxiety in response to situations such as auditions¹⁷ and premieres.¹⁸ Fish and colleagues revealed that professional ballet dancers appear to interpret their state anxiety symptoms as marginally facilitative.¹⁸ However, a dance sample broader both with regard to experience and dance styles reported moderate levels of trait anxiety and marginally debilitating interpretations.¹⁹ Both of the latter studies reported great individual variability in intensity and direction scores, suggesting that further research must be conducted in order to understand why some performers interpret anxiety as facilitative, while others perceive it as debilitating.

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Research in sport also indicates that performers differ in the way they perceive anxiety symptoms. Somatic anxiety may be interpreted as a sign of "being ready,"²⁰ while Jones and Hanton found not only that most athletes' main concern is cognitive anxiety regardless of somatic symptoms, but also that cognitions have a dominant influence on performance.¹² Similar findings have been reported in music,^{21,22} yet to date only one study in dance addresses this issue, reporting that dancers with a lower intensity of cognitive anxiety were more likely to interpret cognitive symptoms as being facilitative.¹⁹ Thus, the primary aim of the present study was to extend current knowledge regarding how dancers interpret their somatic and cognitive anxiety symptoms.

Research indicates that interpretations may depend upon performance level, and it is possible that both a dancer's professional rank and amount of stage experience may impact anxiety intensity and directional interpretation. While sport research suggests that elite performers interpret anxiety symptoms as more facilitative,²³ findings in dance have been mixed in this regard.^{6,8,19,24} Possible explanations for such discrepancies include task and role requirements: sport research has demonstrated that anxiety responses may differ as a function of activity type. For example, rugby players may interpret their somatic anxiety as more facilitative because it helps them feel ready for high-energy activity; those in fine motor skill sports such as golf may find it less facilitative because of its potential to interfere with movement accuracy.²³ Dance, however, varies in its degree of focus on fine motor control and explosive movement, and more advanced dancers are required to perform a range of technically demanding movements that novices do not perform.

Furthermore, while experience helps a dancer prepare for a performance, it does not lessen the pressure of a demanding role. Mistakes may be seen as especially humiliating for principal dancers due to their greater exposure and associated expecta-

tions.²⁵ As such, it might be that experience only reduces anxiety when the skills performed are very similar, as when dancers perform the same role on numerous occasions. In support of this hypothesis, Helin found that ballet dancers' tension levels decreased over the period of a show's run.²⁴ Yet dancers must constantly learn and develop, and so previous experience with one role might serve them little in reducing the anxiety evoked by new roles. Indeed, experience and skill level do not necessarily increase together. For instance, some dancers perform in the corps de ballet for many years, while others enter companies directly as soloists or principals. Furthermore, it has been found that individual athletes experience higher cognitive anxiety and lower self-confidence than those on a team.² In ballet, principals and soloists can perhaps be considered individual performers, while corps de ballet members may be seen as more of a "team." Still, these findings are by no means consistent in sport,²⁶ and orchestral musicians have reported feeling exposed, even when performing as part of a large ensemble.²⁷ Therefore, it appears important to consider individual dancers' feelings of exposure when studying their anxiety experiences.

When investigating anxiety symptoms it is also important to consider their temporality, as they may fluctuate before, during, and after performances.¹⁴ Situational demands vary during performance, and often dancers are on stage for different amounts of time in different sections, depending on their roles. A further temporal aspect is the show's run; Helin found high levels of anxiety among dancers for first night performances, but there were self-activation problems once the same work had been performed many times.²⁴ Altogether, the discrepancies between studies suggest that further research is required to better understand the relationships between anxiety intensity, direction, and experience (including rank).

While relationships between dancers' experiences and their anxiety symptoms and interpretations were

the main focus of this study, the ways in which dancers cope with their anxiety was of additional interest. It appears that anxiety direction is a function of both situational (e.g., novel roles) and personal (e.g., experience) variables. Among the personal variables, perceptions of control, self-confidence, and the use of psychological skills have been suggested to play a role in how athletes interpret their anxiety symptoms.²⁸⁻³¹ For example, self-confidence may moderate the relationship between symptoms and interpretations by "managing" responses that might otherwise be interpreted negatively.^{20,30,32} Indeed, Fletcher and Hanton found that without self-confidence, high anxiety was perceived to be beyond the athlete's control and consequently was interpreted as debilitating; with self-confidence, high anxiety levels were perceived to be under control and therefore facilitative.²⁹ However, while elite athletes might have higher levels of confidence than lower-level athletes, this may not be the case for dancers. Indeed, it is frequently argued that dancers in general have low levels of confidence.^{5,7,10,11} As a result, it appears valuable to explore the role of self-confidence in dancers' anxiety experiences.

Finally, the role of psychological skills was of interest. Athletes who interpret anxiety symptoms as more facilitative employ better, more problem-focused coping strategies, while athletes interpreting anxiety as debilitating have more limited coping strategies.³³ Effective coping strategies (e.g., goal setting, imagery, self-talk) can help performers alter their anxiety interpretations or reduce symptoms, thereby preventing anxiety from affecting performance.^{29,30,34} As an example, Neil and colleagues found that elite athletes not only had higher self-confidence and more facilitative anxiety interpretations, but also used more self-talk and imagery than non-elite athletes.³⁴

In dance, Barrell and Terry found that dancers with lower anxiety intensity seem to have more adaptive, problem-focused coping strategies in

place.⁶ Highly trait-anxious dancers employed more maladaptive coping strategies, which might have had a negative impact on performance. These are valuable findings, yet the role of specific psychological skills in dancers' experiences of anxiety warrants further attention. It is known that soloist ballet dancers use more psychological skills than corps de ballet dancers, and that professional dancers sometimes use imagery to deal with unhelpful anxiety.^{35,36} However, what types of imagery are most likely to support facilitative anxiety interpretations is as yet unclear.^{18,19} These discrepancies, coupled with the general lack of research specifically addressing how dancers manage their anxiety, suggest that more research is needed. A third aim of the present study, therefore, was to explore the roles of both self-confidence and psychological strategies (e.g., self-talk, imagery) in dancers' performance anxiety symptoms and directional interpretations.

In summary, the present study aimed to explore ballet dancers' experiences of performance anxiety in relation to: 1. symptom type, intensity, and directional interpretation; 2. experience level (including company rank); and 3. self-confidence and psychological skills. Professional ballet dancers were chosen as participants in order to extend the previous work in this area,^{5,6,8,17,18,24} and because the context of a company allowed comparisons between dancers of different ranks. Professional dancers also have more performance experience than groups such as students or recreational dancers and thus are more likely to have had a range of anxiety experiences throughout their careers. The participants in this study were selected as information-rich cases that could provide detailed information on the issues central to the study.³⁷ To explore anxiety in depth, a qualitative interview methodology was necessary: there is no valid and reliable questionnaire designed for use with dancers, and the most common anxiety inventory

in sport (the CSAI-2²) has recently been subjected to criticism.^{38,39} More importantly, dance anxiety research to date has been limited, and it is therefore appropriate to study the topic in depth, using the dancers' own words and explanations. Qualitative research also allows for unexpected and surprising findings to emerge, something that is not possible with a quantitative methodology.³⁷

Methods and Materials

Participants

Nine female and six male classically trained ballet dancers participated in the study, ranging from 21 to 37 years of age ($M = 27.4$, $SD = 5.44$). They had been dancing for an average of 20.97 years ($SD = 4.92$), and been professionals for an average of 9.63 years ($SD = 5.89$). Dancers typically had a schedule of one 90-minute technique class five to six days per week, two to six hours of daily rehearsal, and up to seven live performances a week (depending on season and touring). Five of the dancers were principals, two were soloists, and eight were members of the corps de ballet. Although all were currently residing in Britain, the dancers represented eleven different nationalities.

Interview Guide

Interviews were conducted with a standard interview guide approach, using open-ended questions.³⁷ The guide was created for the purposes of the study, with questions generated from concepts and findings in relevant literature.^{2,6,8,23,24} It was structured according to the three main aims of the study and included an introductory section outlining study aims, definitions of concepts, and terminology to be used, followed by questions relating to the dancers' experience of anxiety. Participants were given time to answer questions fully and were encouraged to ask questions at any point. Examples and probes (e.g., asking a participant to elaborate on a point) were used to further investigate any relevant issues.³⁷ The

interview guide is available from the corresponding author on request.

Pilot Study

Once the study had received ethics committee approval, pilot interviews were conducted with two trained dancers to ensure that the interview guide was suitable for the study purposes. Following transcription and examination of the pilot data, minor changes were made to the wording of some of the questions.

Interview Procedure

Interviews were conducted at times suitable to the participants, and held in a private room at the company headquarters. Participants were given information sheets, consent forms, and a copy of the interview guide to read through prior to the interviews. All interviews were conducted by the first author, who has a background in dance and dance science. The interviews lasted between 15 and 65 minutes. Each interview was recorded.

Analysis

Interview recordings were transcribed verbatim, yielding 150 pages of single-spaced text. The transcripts were then imported into the NVivo 7.0 qualitative analysis software (QSR International, Melbourne, Australia) and content analyzed. Analysis was both deductive and inductive.³⁷ The transcripts were read thoroughly, and all relevant sections of text were highlighted. In this way meaning units emerged from the dancers' own words. Categories were continually created and added to until all data were coded. Next, categories were placed in logical hierarchies to represent the relationships between categories and their relation to the research questions.

Due to the potentially subjective interpretation of qualitative data, the authors took steps to establish the study's validity (triangulation). First, the authors regularly debated ideas throughout the analysis phase. Second, the second author re-examined all meaning units and independently created categories and hierarchies

“blind” (i.e., before seeing those created by the first author). Following this, the two versions were discussed and debated in light of sport anxiety theory and recent literature before agreements were reached on any discrepancies. Overall, categories and hierarchies were similar, but amendments were made to enhance clarity.

Quotations from the transcripts are included in the Results and Discussion section, enabling the reader to understand the participants’ experiences from a first-person perspective, and thereby decide on his or her own interpretations.⁴⁰ The quotes are coded according to the participants’ gender (M = male; F = female), company rank (P = principal; S = soloist; C = corps de ballet) and the order in which they were interviewed (1, 2, 3, and so forth).

Finally, the number of times any one piece of information is mentioned is not necessarily indicative of its importance relative to other results, and unique findings can be especially illuminating.⁴¹ For example, one interviewee was uniquely able to comment on possible differences between ballet and elite sport, because of his unusual background (see the Preventing or Handling Anxiety section below). Therefore, “fuzzy quantifiers” similar to those employed by Hanrahan and Vergeer are used where appropriate.⁴² “Some” indicates two to five dancers, “many” indicates six to 10, and “most” indicates 12 to 15 dancers.

Results and Discussion

Interviews revealed a wealth of information regarding performance anxiety symptoms and their interpretations. Moreover, a range of findings related to performance anxiety causes emerged inductively during the interviews. Altogether, six higher-order themes emerged within the overall theme of performance anxiety: Nature, Interpretations, Causes, Effects, Preventing or Handling, and Changes over Career. These, and the lower-order themes from which they were derived, are shown in Figure 1 (which serves as an overview for the results of this study as a whole), and will now

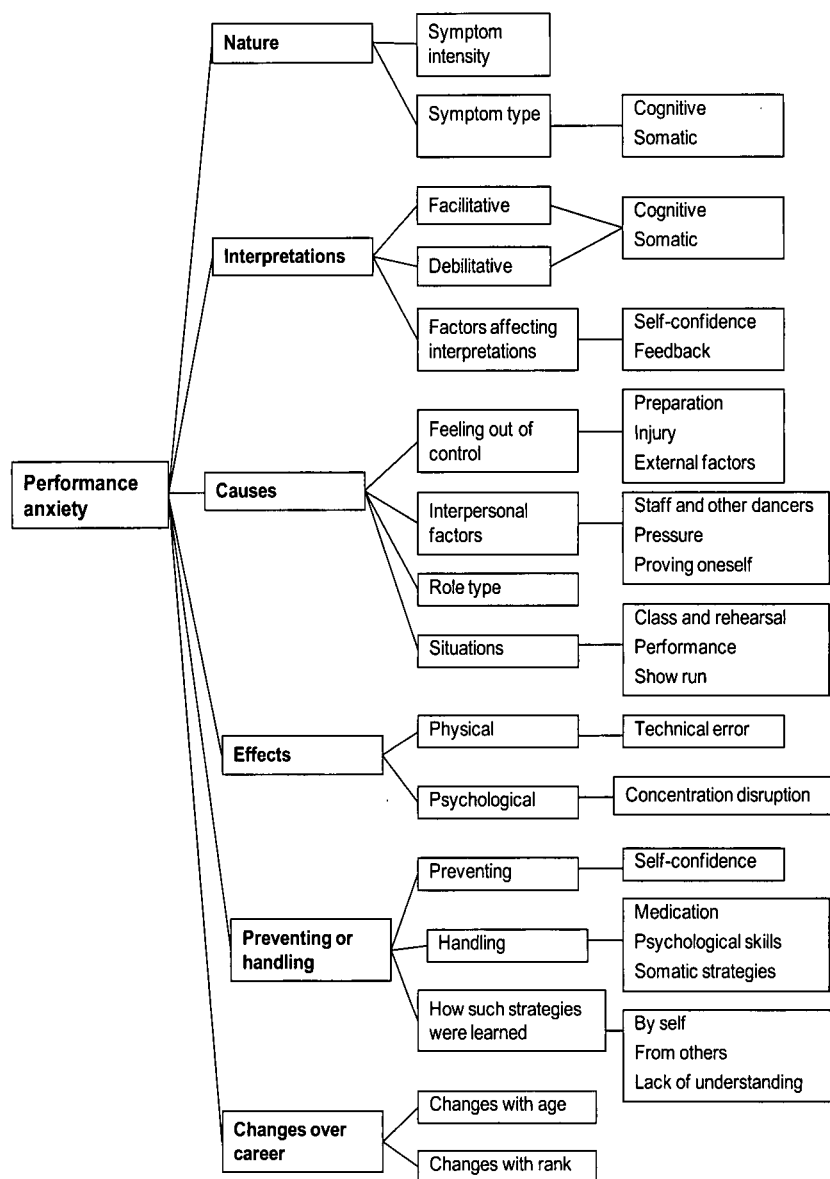


Figure 1 Ballet dancers’ performance anxiety experiences.

be described in turn.

Nature

The higher-order theme Nature was created from second-order themes relating to symptom intensity and symptom type.

Symptom Intensity

Performance anxiety was experienced by most of the dancers, albeit at varying intensities. Toward the end of the interview one of the less anxious dancers did concede that “I think you need to have a little bit of adrenalin before you start” (FP3). She believed her low anxiety levels were due to cultural differences in training, as she

had performed regularly from a young age and felt this had prepared her for a lifetime of stage appearances. Overall, participants’ varying symptom intensities tended to depend on a number of factors.

Symptom Type

Dancers described a range of anxiety symptoms, falling into the typical categories of cognitive and somatic.² Cognitive symptoms included negative thoughts, worries, and negative images. Somatic symptoms included feeling shaky, increased heart rate, excessive sweating, and hyperactivity. One dancer described her somatic symptoms in the following way: “I

feel like throwing up.... My legs always feel wobbly. I feel like I've got jelly legs"(FP2). Some dancers described feeling that they were not grounded, or that they felt like they were outside of their own bodies and "floating." Despite differentiating between cognitive and somatic components, many felt that cognitive and somatic symptoms were linked and, as demonstrated in the following quote, that the former could cause the latter:

I think they [are] connected very much. I think they [are] almost not [one] without the other. If you're psychologically quite tense I think automatically you will experience slightly, you know, feeling of sick (FP2).

Interpretations

Anxiety interpretations varied between dancers just as in previous investigations.¹⁷⁻¹⁹ Due to the qualitative nature of the study and the number of variables affecting directional interpretation (e.g., symptom type, rank, background, and so forth), it is impossible to conclude that the dancers generally interpreted their anxiety as being either facilitative or debilitating. Rather, support was found for studies with dancers reporting both marginally facilitative interpretations¹⁸ and marginally debilitating interpretations.¹⁹ As such, lower-order themes within the Interpretations theme include facilitative interpretations, debilitating interpretations, and factors affecting interpretations.

Facilitative Interpretations

Most of the dancers recognized the importance of anxiety in increasing adrenalin, energy and concentration, all of which would enhance the physical performance. As described by one dancer:

I'm always really excited when I'm gonna do a role, and I think about it, dream about it.... But it's not nervous like, "oh my God I want to get out of here"; it's like, "my God I'm so nervous but I'm so excited, I can't wait to

get out there" (MP1).

In particular, somatic anxiety was perceived as facilitative: "I think adrenalin can be a good thing that can help you get through...especially if it's, let's say, physically tiring" (MC4). Dancers felt there was an optimal amount of anxiety that was necessary in order to perform well, but if it became higher it would negatively affect performance. This finding concurs with multidimensional anxiety theory,² whereby somatic anxiety appears to have an inverted-U relationship with performance, while cognitive anxiety has a negative linear relationship with performance. As found previously in sport,^{29,30} feeling in control of anxiety symptoms was a major factor in producing facilitative interpretations of those symptoms. For instance, a dancer described her experiences as follows: "If you get it at the right level, if I just get a buzz and excitement... you start risking things on stage.... When you get it at that level I think you perform best"(FC4). Overall, the theme of feeling in control emerged consistently throughout the interviews.

Debilitative Interpretations

While most of the dancers were able to perceive a certain degree of anxiety positively, some were not able to do so at all. For example one dancer commented, "I hate it.... I always wished I wouldn't have them [nerves]. I wish I would achieve a different way and not this way"(FP4). In sport it has been found that, in general, elite athletes or those with more competitive experience are more likely to interpret anxiety as being facilitative,^{23,33} while dance research findings vary.^{8,18,19} In the present sample no concrete relationship between performance experience or rank and anxiety experiences was discernible; however, it is notable that the above quote is from a highly experienced principal dancer.

Dance performance uses a combination of fine and gross motor skills, and so it is not surprising to find that dancers varied in their interpretations of somatic anxiety. This may be due

to variations in degree and type of somatic symptoms experienced, for instance, adrenalin-type anxiety or involuntary function-type (e.g., needing to use the bathroom or yawning). Furthermore, the dancers who reported a negative component to their somatic anxiety were all principal dancers who were performing more technically difficult steps and had higher expectations placed upon them.

Dancers perceived cognitive anxiety symptoms as debilitating. In fact, most dancers experienced a stronger intensity of cognitive anxiety than somatic anxiety, and this was more likely to be interpreted as being debilitating. For instance, one dancer reported: "The psychological stuff I think is obviously more damaging—envisaging yourself falling over, or forgetting the steps"(FC3). This concurs with previous work in sport and music reporting that performers are more likely to be concerned with cognitive anxiety, regardless of somatic anxiety symptoms.^{12,21,22} Interestingly, there was a general belief that somatic symptoms stemmed from negative cognitions.

Factors Affecting Interpretations

A range of factors were said to influence the dancers' interpretations of anxiety symptoms. These were predominantly personality factors such as self-confidence, in addition to the effects of feedback.

Self-confidence. Self-confidence was mentioned as important by the dancers, supporting evidence in sport psychology that it plays an influential role in anxiety intensity and interpretation.^{20,30} A range of levels of self-confidence were reported that may have affected the dancers' anxiety symptom intensity as well as interpretation. One dancer illustrated this well, simultaneously relating it to the pervasive element of control:

I'm quite confident within myself but I suppose it is a certain element of self consciousness and doubting yourself, it's just having it under control really isn't it? I like to have it all under

control and then I can be happy with it (MC3).

Sport research has shown that athletes with low self-confidence feel that increases in performance anxiety are outside of their control and therefore interpret their anxiety as debilitating.³⁰ Therefore, if dancers are able to feel in control of their anxiety, perhaps due to raised self-confidence, they may interpret their anxiety as predominantly facilitative.

Feedback. Self-confidence may also be related to feedback, which reportedly could enhance or demean a dancer's confidence: "If I've had constructive criticism then I think I'm more positive, but if I've not had constructive criticism then I'm feeling negative about myself anyway; then it doesn't help" (FC1). Previous research has similarly found unjust feedback and humiliation capable of causing anxiety,^{8,43} while positive feedback and constructive criticism can enhance dancers' self-confidence.⁴⁴ Taken together, such findings indicate that self-confidence and related personality constructs warrant further attention and research in the dance world.

Causes of Performance Anxiety

Among the causes of anxiety, feeling out of control was a main theme. Other causes were grouped into themes representing interpersonal factors, role type, and anxiety-provoking situations.

Feeling Out of Control

A major factor in causing anxiety, feeling out of control, was associated with a sense of being under-prepared, physically challenged (e.g., injured), and affected by a range of external factors.

Preparation. Understandably, feeling under-prepared appeared to diminish dancers' sense of control. As one dancer described it: "...the worst thing: to go into something that you've not even seen or didn't learn or weren't meant to do" (FC2).

Injury. Injury also contributed to feeling out of control. For example, one participant mentioned

that "...you get through the pain to get through the show; then you feel that you're not 100% in control of your body so that can make you feel more nervous" (MP1). Many dancers reported dancing through injury and pain, and how the uncertainty of making the injury worse or feeling that the injured body part was out of control was anxiety-inducing. This may increase the risk of making mistakes and of sustaining further injury, as represented in the stress-based model of athletic injury.⁴⁵ A related finding involved physical fitness, with some dancers being concerned that they would not have sufficient stamina to finish a particularly challenging work.

External factors. A number of external factors were noted as causing anxiety because they were outside the dancers' control. Many of these have not previously been explored in the literature. Costumes, speed of music, stage types, and audience members were all mentioned. Anxiety intensity among child musicians reportedly increases with audience size,²¹ but in the current study opinions on audience size varied. Reactions to having friends and family in the audience were mixed, but the more common experience is evidenced in the following quote: "If you've got friends and family in the audience...it makes you more nervous because you know they're looking at you and solely you" (FC1).

Interpersonal Factors

Interpersonal factors were important causes of anxiety, just as in previous research.^{30,46} Such factors included relationships with staff and other dancers, as well as pressure and proving oneself.

Staff and other dancers. Some dancers described feeling a lack of support from staff and competition with fellow dancers, while others felt that staff were usually positive and the company was very close. Also similar to previous work in sport,³⁰ dancers felt pressure from management and teachers, and that according to one's professional status (rank), changes in

pressure would occur. One dancer explained:

...when you start to do the leading roles, obviously you're in a way a face of the company and representing the company, so the management would like you to be your best and to do your best so the company will look good (MS1).

Such pressures in the dance profession have been documented previously, alongside other stressors such as job insecurity, competition with other dancers, low salaries, and a relatively short career.^{47,48} Thus it seems that when combining external factors such as expectations and pressure with the many other uncertainties of dance performance, dancers are at risk of both performance-orientated and more general anxiety.

Pressure. In addition to external pressure, dancers frequently reported internal pressures to excel and perform well. However, while these were said to be pressures from within, they were clearly related to external factors, including as they did references to having to prove oneself, fears of negative judgement from other dancers and staff, and self-criticism. For example:

For me I will get really mad if something doesn't work, 'cos I feel I have let myself and people from the company and the audience down, and that's probably why sometimes I get really nervous. I feel like I can't fail (MP1).

Proving oneself. It became clear that having to prove oneself was a key anxiety risk factor, as were the perfectionist and self-critical tendencies common among dancers.^{49,50} As put by another dancer: "If you've done a bad performance you do come away a bit like 'I should've given it more,' or 'I should've done this,' so you do judge yourself after" (MC2). It is notable that perfectionism and self-criticism are associated with debilitating anxiety interpretations.^{27,51,52} It is further important to note that while

perfectionism is a personality trait, it is also related to teaching behaviors. For instance, dancers who feel that their teachers punish mistakes are more likely to report symptoms of not only cognitive anxiety but also perfectionism.⁴³ Work in a variety of performance domains^{8,44,53} has shown that a focus on social approval is debilitating not just in terms of causing anxiety, but also in lowered self-confidence and increasing avoidance tendencies.⁵⁴ Therefore, it is crucial to emphasize the importance of setting high standards that are achievable and within a dancer's control, as well as focusing on positive aspects of performance rather than solely on the negative. This is likely to be important in early training as well as in professional settings.

Considering the importance of adolescence in the development of personality,⁵⁵ early training may have lasting effects on dancers' anxiety experiences and interpretations, their desire to prove themselves, and their own self-criticism. An interesting demonstration of such influences is evident in the following quote:

...perhaps from when I was little, because all I remember is like, "oh she's talented," I only heard "she's talented," but not "she's good because she works really hard." I was, you know, praised always, "oh she's just natural," and then I would go and doubt myself (FP4).

This example demonstrates the importance of communication that emphasizes a sense of control as a central feature; as is well-established in attribution theory, attributing success to talent (rather than effort, which is within one's control) can contribute to unfavourable outcomes, even if meant as praise.⁵⁶ The potential impact of both negative and positive feedback must, therefore, be carefully considered.

Role Type

Dancers felt that character roles were less likely to cause performance anxiety than highly technical ones. Indeed, character roles appeared to be more enjoyable:

If you're in a character, you never think about the audience. You're locked in this world; it doesn't matter about everyone else, everyone else watching, it's about the people around you, it's different. You want to stay in that bubble (MC2).

The "otherworldly" aspect of being onstage may represent the intrinsic enjoyment of artistic performance.^{44,54} Notably, however, anxiety could sometimes inhibit this characterization process: "You know, I don't feel Juliet; I'm just pretending. I'm actually thinking about something completely else" (FP4). It appears appropriate, therefore, for instructors to stress the artistic and intrinsic aspects of performance as a means of increasing enjoyment and reducing anxiety for performers, for example by providing rich imagery that allows dancers to "lose themselves" in a role.^{36,42} If performing has a positive, intrinsic aspect to it, it is less likely to cause anxiety and performance decrements.⁵⁴ Interestingly, it may be that these dancers reached a flow state mainly during stage performances, as indicated by the quotations below related to anxiety-provoking situations.

Situations

Anxiety-provoking situations included class and rehearsal as well as performance. Moreover, the show run emerged as another key consideration in relation to anxiety-provoking situations.

Class and rehearsal. Although performance anxiety tends to be thought of as relating solely to actual stage performances, many dancers described experiencing anxiety in class and rehearsal. The following quote illustrates this:

I get really, really nervous, actually sometimes more than the show, because you don't have the lights and the set and the costumes and all the things that protect you. 'Cause when I get up on the stage from here, it's like my world. But when you're in the studio you've got people

like that, sitting on the floor, so you actually see people's faces, so it can be, you know, really, really hard (MP1).

Helin has similarly found that in final rehearsals dancers' anxiety levels were of an intensity similar to those experienced on the first night of performance. Furthermore, symptoms did not always dissipate, but could remain for the duration of the rehearsal.²⁴ As in the present study, this appeared to be due to perceived threat, such as others' judgments. Clearly, the psychological atmosphere, feedback, and communication must be considered to facilitate a supportive environment and minimize feelings of competition or unjust criticism.^{43,57} Indeed, it has been reported that when dancers perceive their training environment as emphasizing rivalry, and that they might get punished for their mistakes, they are more likely to feel anxious.⁴³ This indicates that there are issues of anxiety and self-confidence that need to be addressed not only on stage, but also in the studio.

Performance. Most dancers reported feeling anxious shortly before going onstage, but that once there symptoms tended to dissipate relatively quickly. These findings correspond with similar work in both dance and sport.^{24,34,31} However, this was not universally the case:

I find that so often I feel fabulous and then suddenly I feel like, just before going on, I have the stage fright; or, I can feel really frightened and once I get onstage I feel great. So you never know actually how one is gonna feel, what is gonna affect you. I never pinpointed what will affect you. (FP2).

This testimony indicates that the causes of anxiety are sometimes unpredictable—or perhaps simply that the dancer did not understand her anxiety particularly well. It may also mirror Helin's findings that principal dancers' anxiety increased more rapidly before and during performances than did the anxiety of corps de ballet members

and soloists.²⁴ Presumably this is because principals face many challenges during a performance, such as solos and pas de deux sections. Still, fluctuations in anxiety and self-confidence throughout performances have been observed also in other performance domains.¹⁴

Feelings after performing were not directly inquired about, but some findings emerged inductively. For instance, it was felt that analyzing the performance could provide dancers with strategies and ideas for improving it in the future. One dancer described feelings of anger toward herself for having experienced anxiety prior to the show. Such experiences might be of interest to pursue in future research.

Show run. One aspect of performance that has received little research attention is show runs and performance seasons. In general, the dancers represented here perform each show many times (up to 70), and shows can reappear in the repertoire one or two years later. Not surprisingly, such experience with a role typically meant experiencing decreasing anxiety intensities as the show run progressed:

It changes throughout a season. So at the beginning, say we're doing six weeks of...Giselle, the first opening night is a big, not stress, but you have that freshness, that bit of nervousness, bit of excitement, you get like a real strong buzz from being onstage. The second show is always the one that goes down...and then it starts getting into a motion.... You know what you're doing so you're comfortable onstage, it's no nerves if you want, no worries really (MC2).

While decreased anxiety may sound positive, it can result in problems with activation in companies with long show runs.²⁴ This is especially true of corps de ballet members, whose roles are not as technically challenging as principal dancers' and are not usually observed individually. These dancers also typically perform in a far greater percentage of the total show run than

do more highly ranking dancers. In the words of one corps de ballet member: "Sometimes I can walk onstage and it can be like standing in the wings, because I know what I'm doing and I've done it 20 times; I can feel nothing sometimes"(MC3). Indeed, one dancer even described how she purposefully tried to make herself nervous by cutting her preparation time. Thus problems with anxiety experienced by corps de ballet dancers could be quite different from those experienced by principal dancers.

Performance Anxiety Effects

Several effects of performance anxiety were discussed by the participants. These were either physical or psychological in nature.

Physical

Many dancers described how the physical symptoms of anxiety affected their bodily control, for example the feeling of shaky limbs. Some dancers also felt that anxiety affected their stamina; for example, "Cause I was worried about it, it made me be out of breath"(FC4). In the dance literature effects on dancers' skill and performance have been said to result from high anxiety intensities.²⁵ Importantly, however, the present sample attributed physical performance decrements (e.g., making mistakes) to cognitive anxiety only. For example: "I mean if it's...very negative thoughts, then I don't have a good performance at all. You just feel you're out of control of your body"(MP1). Thus, as in sport and music, cognitive anxiety appears to have a greater effect not only on dancers' perceptions of direction, but also on their actual physical performance.^{12,21,22}

Psychological

The main psychological effect of cognitive anxiety was disruption of concentration, and some dancers attested to how staying focused was a difficult but necessary task:

I don't know if the concentration is connected to the anxiety, but I find that most of the time I

lose my concentration quite easily, and that is one thing I have to really think about and actually concentrate on my concentration" (MS1).

Smith and colleagues⁵⁸ reported that both cognitive and somatic trait anxiety were associated with loss of concentration as well as injury vulnerability in dancers. By contrast, a flow state (where performers achieve their peak experiences) enhances concentration and minimizes negative anxiety.⁴⁴ Perhaps recognizing the value of such a flow state as opposed to focused attention on skills that ought to be automatic, one dancer contradicted the previous quote as follows:

The thing is, I don't wanna concentrate too much...because we rehearse and practice every day so the things should be in your body, so the best way would be if you just go and let it happen because your body knows how it should work (MC4).

The issue of what to focus on while performing clearly requires further research attention in order to understand individual strategies and their efficacy. Nevertheless, it may be safe to assume that while concentrating on skills may be useful in the learning phase, doing so in performance—and especially for a self-conscious individual under pressure—may result in "paralysis by analysis," a state in which attention to automated skills leads to skill breakdown.⁵⁹ By contrast, concentrating on characterization and communicating the intention of a piece is likely to enhance performance. Further strategies for coping with performance anxiety are discussed next.

Preventing or Handling Performance Anxiety

This theme was constructed from discussions around strategies that dancers used to cope with anxiety. Corps de ballet members were generally better able to cope, perhaps because their symptom intensities remained fairly low due to less pressured roles.

While more experienced dancers have typically been found to use more psychological skills than their less-experienced counterparts,^{19,34} little relationship appeared to exist in the current study between performance experience and psychological skills usage. Differences in training may in part explain this finding.

Dancers had developed their own routines and mechanisms to help them cope with anxiety. While previous studies have found a relatively high incidence of maladaptive coping strategies among dancers,^{6,60} those mentioned by the present sample generally appeared adaptive, if sometimes uninformed. Strategies fell into the general categories of preventing anxiety from occurring, and handling anxiety once it did appear. Furthermore, some examples of how such strategies were learned emerged inductively.

Preventing Anxiety

As has been found for athletes,^{20,30} self-confidence appeared to protect against debilitating performance anxiety, with reports that high self-confidence helped the dancers to feel in control even as anxiety increased, and therefore interpret symptoms as facilitative:

If you have a certain confidence, even if you have anxiety you'll be strong, but then if you haven't got the confidence in yourself and you are anxious, you find it more difficult to go through with it (FP1).

Most anxiety prevention strategies were the direct inverse of anxiety causes: for instance, because a cause of anxiety was feeling under-prepared, good preparation (e.g., planning, marking through sequences) was cited as a way of preventing anxiety. The same was true for social support and long show runs, higher levels of which acted as anxiety prevention. Furthermore, dancers reported that with more experience of being onstage came a better ability to cope with anxiety. One dancer explained: "You learn a lot by experience and by being on stage.

I think that was the best thing that can happen to a dancer, that you're on stage all the time" (MS1). Yet, while it was generally agreed that performance experience helped them cope, this was not necessarily associated with decreases in symptom intensity: "I think you just become more experienced how to handle it, but the anxiety can actually rise higher in a way" (FP2). Overall, it appears that anxiety intensity, interpretations, and coping styles are highly individual, which could be due to the lack of formal psychological input in dance training.^{23,57,61}

Handling Anxiety

When anxiety did emerge, dancers handled it in multiple ways, including through medication, psychological skills, and somatic strategies.

Medication. Some of the sample reported having tried supplements to help them cope with anxiety. Rescue Remedy was the most common, although other herbal supplements, including St John's Wort, aromatherapy oils, Kalms, and Alka-Seltzer were also mentioned. None had tried prescribed medications. Dancers felt that, even when remedies were perceived as effective (and often they were not), this was due to a form of wish-fulfilment: "If you believe in Rescue Remedy and you believe in that sort of herbal thing, or it could just be a placebo effect you know!" (FC3). There appeared to be consensus that "external methods" were not particularly effective, which resembles previous research with modern dance students who felt that health-related issues were under their individual control.⁶² In fact, the students ranked their own interventions as being more important than those of health experts.⁶² Similarly, the dancers in this study felt that the best way to deal with performance anxiety was through self-taught, experience-based methods. Encouragingly, neither alcohol nor illicit drugs were mentioned, even though they have been by dancers in other studies.^{60,63}

Psychological skills. A variety of cognitive strategies were employed to try to reduce or alter interpretations of cognitive anxiety symptoms.

This is logical, given that participants were generally more concerned with their cognitive (compared to somatic) symptoms. One such strategy was thought-stopping: "If I have negative thoughts, if it's getting out of control, I'm quite good at really just pushing it down and managing to keep it in my control and not letting it get out of hand" (FC4). Another such example was self-talk: "You're trying to pull yourself back up, like 'Oh come on, the audience don't know that'" (FC1). Another strategy for encouraging more facilitative interpretations of anxiety symptoms is imagery,^{29,36,64} and this was mentioned briefly: "I kind of imagine this black chalkboard and they start writing [negative thoughts] and I just sweep away and keep them out" (FC5). It may be of benefit to encourage dancers to use psychological skills more frequently, as in sport this has been shown to lead to both facilitative interpretations and improved performance.²⁷

Additional strategies for handling anxiety included watching recordings of previous performances (to either bolster self-confidence or analyze the performance), and superstitions. One dancer described her individual superstition, which she stood by even though she recognized that it was a false notion: "If I couldn't find a comfortable pointe shoe, I just automatically think 'Oh God, it's not gonna be good'" (FP1). Thus, it is important that dancers be educated about which strategies are likely to be most effective, and taught in a way that enables them to feel confident and in control of their anxieties as well as the strategies themselves.

Somatic strategies. A thorough warm-up was mentioned as essential in preparing for a performance and reducing somatic symptoms. Additionally, physically marking through certain sections helped the dancers feel in control. Finally, breathing was felt to be important: "...breathing, things like that, can help you to relax the body and your heartbeat and things like that, and be on the moment and not to get ahead of yourself" (MP1). Indeed, breathing techniques are a

staple in applied psychology as well as somatics (e.g., yoga, Alexander technique), seen as being effective for reducing anxiety symptom intensity and more.⁶⁵

How Such Strategies Were Learned

The interviewees gave numerous examples of how they had learned their anxiety management techniques. As in previous studies,^{19,66} these were largely self-learned, but sometimes acquired informally from others. There was in several cases also a lack of understanding and knowledge of how anxiety might be effectively managed.

Learned by self. Dancers had learned coping strategies through practice and experience, psychological skills not typically having been part of their training. Most dancers also felt that self-taught strategies, with advice along the way, were most effective: “I think it’s better to learn your own way, but I think it’s good hearing advice, or some opinions, so you get the idea of something else to work on, or try with yourself” (FP1). It was encouraging to note how many dancers were consciously attempting to alter interpretations without any formal advice, using intuitive methods. In many cases this had taken years, but experience seemed to be a main factor in handling debilitating symptoms: “The more experience I get, the more I know myself and how to feel the right way before I go onstage” (FC1).

Learned from others. It was rare for the dancers to have been formally taught to cope with their anxiety; rather, strategies and tips tended to be picked up informally from teachers or other dancers: “I didn’t learn just from myself but I kind of pay attention a lot to how different—not everybody—but a few people, how they deal with that, how they cope with that” (MS1). It is noteworthy that many participants felt that discussing their anxiety was almost a taboo issue and was not something they had spoken about prior to these interviews:

I think I never really wanted to speak much about it with other people because it is, especially

in the ballet world, hard to find some real friends to speak about things like that, and it’s something I never really fancied to speak about with somebody else” (MC4).

Such feelings may be perpetuated by the competitive environment of professional dance, resulting in an unwillingness to admit to feelings of anxiety or low self-confidence. One dancer had previously trained in sport at an elite level and had learned many strategies related to performance and well-being that he felt were absent in dance training. This enabled him to make intriguing comparisons of his experiences in sport and dance:

I think the problem with this world is that we’re very old-fashioned: in ballet we’re always told we’re not good enough, which is hard because everyone works the best they can and they try their hardest but, you know, it’s never good enough.... There’s ways of saying that and it’s not always said the right way to us, so I think there could be a lot learned from sports in this world. You know, there’s a lot of things that we could transfer which we would never do (MC2).

Lack of understanding. Despite many attesting to having gradually learned to manage anxiety, some dancers felt unable to do so and did not know how to go about reducing or handling their anxiety symptoms. For instance, one dancer stated that:

It’s strange because I’ve got enormous experience but I still feel like I’m 18. I still feel like I haven’t learned anything, I haven’t learned enough, I don’t know anything. The more you know, the more you actually know that you don’t know enough (FP4).

This dancer had always been anxious, suffering from self-doubt and low self-confidence as well as perfectionism, which appeared to

be linked to her earlier training experiences. Interestingly, there was a belief among the dancers who felt unable to manage their anxiety that psychological support would not benefit them, as “...everybody’s different and everybody’s coping in different ways” (MC4). Such misguided understanding would certainly be a hindrance if indeed they were offered support or information. In fact, sport research has amply demonstrated that psychological skills training can be of help,^{12,28,64} and any good performance psychologist recognizes that interventions are most effective when based on research but then individualized to specific circumstances.^{60,65} Perhaps the dancers’ reluctance to seek outside support was due to an assumption that psychologists would focus on pathology rather than performance enhancement.⁹

Performance Anxiety Changes Over Career

In addition to current anxiety experiences, interviews focused on changes across the dancers’ careers. Findings pertained to changes with age and changes with rank.

Changes with Age

The dancers enjoyed performing onstage as children, when pre-performance feelings were those of excitement rather than anxiety: “I think it was more excitement...at that time of your life you don’t have anything to worry about and it’s the thing that makes you happy” (FC3). Subsequently, exposure to frequent evaluative situations and competitive environments increased vulnerability to performance anxiety in most of the dancers (a similar finding to a study in music²¹). For instance:

I remember once, when I was still in school, and they have like a front line of ballet boys and girls in front of all the company members, and I had to do that and I was terrified, because I was so exposed in the first row,

and second because I had all the company members behind me (MC4).

Descriptions of early experiences with very harsh teachers who punished mistakes, which had repercussions for years to come, again highlight the impact on students of teaching styles, reactions to mistakes, and expectations.^{43,57,67}

Anxiety often began during adolescence, a time when self-consciousness increases.⁵⁷ This is also the life phase during which training typically intensifies, dancers audition for (and if successful move on to) highly competitive schools, and some take part in dance competitions. As such, it is not surprising that the feeling of exposure during adolescence becomes more difficult to cope with, and anxiety increases.

Moving on from childhood and adolescent experiences, there was no consistent pattern as regards changes in anxiety with age. One dancer described decreases in worry:

I think the psychological side has decreased. Because you've kind of got a broader outlook on everything... Like I know that if it all goes completely wrong and I fall on my head, it's gonna be awful but I'm still gonna be alive. Whereas when I was younger it was just like the end of the world (MC3).

However, for many cognitive anxiety symptom intensity had increased with age:

I think because you know more and you expect from yourself more, kind of, high level of performing all the time, and when you make mistakes, you think to yourself, "Well, actually after all this training and years of being on stage, you shouldn't make simple mistakes like that" (MS1).

It seems that increased self-awareness combined with an increased awareness of others' expectations led dancers to put more pressure on

themselves.

There were also reports of a decrease in somatic anxiety with age, and reports of no changes at all. But while there was no consistency with regard to symptom intensity, there was a general sense that experience had taught the dancers how to cope better with their nerves and made them interpret symptoms as more facilitative than when they were younger. In music performance anxiety has been found to be negatively correlated with age,⁵¹ but this was not the case in a recent dance investigation.¹⁹ It is likely that a number of factors combine to explain these incongruent findings, including personality factors and changes in rank.

Changes with Rank

As noted previously, principals appeared to experience greater performance anxiety due to increased pressure from demanding roles. Thus, dancers seemed to be more self-conscious and self-critical the higher their rank, with more concern over mistakes, interpersonal comparison, and others' judgments: "The minute you achieve the great roles, then you start to worry about how good you're doing it, if you're better than the soloist before" (MS1). Indeed, older high-ranking dancers may feel as though they must continuously prove themselves in order to keep their status: "The older I get, the more nervous I get. It's this kind of nervousness like 'Oh my God, I have to prove still that I can do it'" (FP4). As Sataloff and colleagues noted, experience and expertise should help to decrease performance anxiety intensity, but with better roles comes increased scrutiny and exposure, and making a mistake can potentially damage both a dancer's self-esteem and career.²⁵ Thus, it is logical that lower ranking dancers generally reported lower anxiety intensities even though this diverges from previous research.^{8,27} In the words of one corps de ballet dancer: "...when I'm in a group I feel like I can hide. Even if I'm at the front of the line

I still feel like I'm hiding" (FC5). Overall, then, differences in anxiety between ranks seem to be due more to exposure than experience.

Implications

The results of this study suggest that dancers may benefit from education about anxiety interpretations and the potential positive effects of performance anxiety. Psychological interventions can be of particular benefit to dancers who are negatively affected by their performance anxiety,⁶⁵ but education and psychological skills training can be useful to dancers more generally. Cognitive strategies are indicated for this sample, as cognitive anxiety was unanimously interpreted as debilitating, whereas somatic anxiety was often interpreted as facilitative. Therefore, interventions such as restructuring and problem-focussed coping may be most effective. A major part of such an intervention should be enhancing the dancers' feelings of control over their dancing in general, as well as over their anxiety in particular.

Since relationships with staff members and peers were cited as causes of anxiety, team-building exercises that improve communication and understanding between company members could potentially prove useful.⁶⁸ This strategy may also help to reduce anxiety symptoms during rehearsals. Finally, feeling adequately prepared was often mentioned by the dancers as a key component of reducing performance anxiety. More rehearsals in real-life theater spaces could enhance feelings of preparation, as might imagery rehearsal.³⁶

Limitations

The main limitation of the study was the varying interview durations. Due to seasonal tours and the dancers' busy rehearsal and performance schedule, three interviews were of 15 minutes duration only, which limited the amount of information that could be gleaned from those participants. Still, the key issues were discussed with all participants, and thus important data were still gathered from the interviews.

Importantly, this study interviewed elite ballet dancers only, indicating that results may not generalize to dancers of other styles or status.

The small-scale qualitative nature of the study means that findings are in-depth and rich in information, but work involving dancers of different levels (i.e., recreational, student, pre-professional) and styles (e.g., contemporary, break, and ballroom) is now required to provide a wider picture of dancers' anxiety experiences. Intervention studies are also encouraged to assess the efficacy of certain psychological skills programs with dancers, and to make viable recommendations to ensure that performance anxiety experiences do not hamper dancers' performance, enjoyment of performing, or general well-being.

Conclusion

The present study provides evidence concerning the anxiety experiences of professional ballet dancers in regards to symptom intensity and interpretation. In addition, relationships between anxiety, experience (including rank), self-confidence and psychological skills were explored. Although anxiety experiences varied, some conclusions can be drawn about the sample as a whole. In general, anxiety intensities appeared to increase with rank; indeed, for corps de ballet members problems of activation were frequent, particularly toward the end of performance seasons. Therefore, problems with performance anxiety should not be assumed to diminish as a dancer becomes more experienced, older, or is given more difficult roles. Cognitive anxiety was generally more dominant than somatic anxiety and was interpreted as debilitating. Somatic anxiety was more likely to be interpreted as facilitative, but interpretations varied widely. While many variables influenced anxiety intensity and interpretation, most dancers recognized that a certain amount of anxiety could be helpful toward improving performance. Self-confidence appeared to have an influence on anxiety symptoms and interpretations in

some instances, yet this relationship is far from clearly elucidated, and many dancers felt that anxiety and self-confidence could co-exist. A major antidote to anxiety was preparation, and relationships between peers and colleagues were influential in the experience of performance anxiety; psychological skills training and similar interventions may help in this regard. Overall, perceptions of control appeared to underlie all aspects of the study; a perceived lack of control caused anxiety, and anxiety management strategies should therefore focus on improving dancers' sense of control.

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