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## **Anxiety, physical activity, and public performance: An interpretative phenomenological analysis of amateur gymnasts' competition experiences**

**Lucy H. Merritt & Paul K. Miller**

### **Abstract**

Individuals experiencing elevated levels of anxiety have, for some time, been of significant concern for healthcare researchers and practitioners. Physical activity is, meanwhile, often viewed as constructive for anxiety release. When physical activity and its public performance merge, however, anxiety and anxiety release can come into contradiction. In this paper, an interpretative phenomenological analysis of N = 6 amateur gymnasts' experiences of anxiety around public performance are explored, with a view to elucidating some psychological issues around practical, everyday performance stress.

### **Keywords**

stress; anxiety; gymnastics; interpretative phenomenological analysis; public performance.

### **Introduction**

Individuals experiencing elevated levels of anxiety have, for some time, been of significant concern for healthcare researchers and practitioners. Not only is this state connected to a range of mood disorders and mental illnesses (Davis-Evans, 2013; Sowislo & Orth, 2013), but is also known to have serious detrimental impacts on somatic health (Egido *et al.*, 2012; Janszky *et al.*, 2010). The role of physical activity in promoting general somatic and

psychological wellbeing is, on the other hand, also well documented. Consistent levels of moderate-to-vigorous exercise are demonstrably beneficial for cardio-vascular health (Berlin & Colditz, 1990; Christie *et al.*, 2012). Equally, structured physical activity programmes have been proven efficacious in the treatment of mild-to-moderate depression (Callaghan *et al.*, 2011; Ward & Miller, 2013). The absence of physical activity, meanwhile:

*...can have harmful effects on health*

*and well being, increasing the risk for coronary heart disease, diabetes, certain cancers, obesity, hypertension, and all cause mortality. (Ströhle, 2009, p. 777.)*

Indeed, a wide body of research indicates that physical activity can have productive impacts specifically in terms of reducing anxiety levels themselves (see Ströhle, 2009 for a comprehensive review). A paradox herein – with respect to anxiety – can arise, however, when an individual's engagement with physical activity advances to a level where 'public performance' becomes a feature thereof.

### **Public performance and performance anxiety**

Studies in the sports sciences have, to date, demonstrated that public/competitive performance settings do subject athletes to elevated stress and anxiety levels with mostly detrimental effects (Abrahamsen *et al.*, 2008). Typically, it is observed that:

*Considering that athletes in competitive sports need to perform well under pressure, sporting competitions can be considered as potentially threatening evaluative situations...* (Englert & Bertrams, 2012, p. 580.)

It is also the case, however, that the bulk of sport psychology in this domain has been geared at examining only the anxieties affecting adult, 'elite' athletic performers (Battocchio *et al.*, 2009; Kristiansen, Halvari, & Roberts, 2012). By comparison, a much smaller body of investigation has been accorded to the far more commonplace (but no less damaging) performance-related anxieties affecting younger and/or amateur sporting participants who make up the vast majority of the exercising population. From a general healthcare perspective, this is an important shortfall in knowledge. The simple fact that a professional is performing at the highest levels of sport does not necessarily mean that they are immanently subject to proportionately higher levels of anxiety than, say, a teenage gymnast in a school tournament. It may well mean the opposite; anxiety is after all, in most psychological accounts, relative to the individual's interpretation/understanding of context and experience therein (Orlick, 2000). As Kreider, Fry and O'Toole (1998, p. 345) note

*...the quality of a specific stress experience depends not on the demand but on the individual's perceptual and cognitive processes and behavioural skill or action tendencies.*

### **Anxiety, context and fluidity**

From a research point of view, the focus of most sport psychology on elite performance has had the corollary effect of also narrowing the research focus exclusively to anxiety *in* sporting contexts. Because, for the professional athlete, much of life is centred largely *upon* sport, this is perhaps understandable. For the amateur, however, sport is likely to be just one of many overlapping life contexts, and to explore the anxieties of these individuals' experiences as purely 'sporting' phenomena is to do scant analytic justice to the manner in which different domains may interconnect for those individuals themselves. Anxieties about sporting performance may well intrude upon other activities and tasks, while pre-existing anxieties are known to often carry over into performance contexts (Bandelow *et al.*, 2004). This narrowing of substantive focus is also reflected in the research tools used in the psychology of sporting anxiety, the overwhelming bulk of which are quantitative in nature, although this is also true of the broader psychology of anxiety. While such forms of analysis have yielded important findings, they inveterately embody the assumptions of the researcher(s) in their design (Miller & Cronin, 2013). As such, they rarely help us understand how individuals organise and interpret their own anxieties, and how these things may be fluid between contexts. Rather, the focus is upon robust measurement of pre-determined constructs *in-situ* that may not always map onto the experience of the individuals being studied.

This paper, thus, reports findings from a phenomenological study of the experiences of amateur gymnasts surrounding public competition. Without recourse to pre-ordained definitions regarding the character of 'anxiety', 'stress', or even what actually constitutes 'performance', these core concepts are explored in terms of how they are variably assembled, understood, and managed within the participants' own narratives.

### **Research design**

Design was built around interpretative phenomenological analysis (IPA), which provides a systematic means of qualitatively exploring *how participants are making sense of their personal and social world, and the main currency for an IPA study is the meanings particular experiences, events, states hold for participants.* (Smith & Osborn, 2008, p. 51.)

### **Participant selection**

With institutional ethical approval, N = 6 active gymnasts (age range 14–23 years) were purposively recruited from amateur clubs in several different regions of England.

### **Research materials**

Data were collected using the semi-structured interviews and open questioning characteristic of IPA. All interviews were digitally recorded and transcribed verbatim. In line with ethical requirements, data were fully anonymised at the point of transcription.

### **Data analysis**

Analysis was conducted in line with the idiographic procedures of IPA. A free textual analysis was subsequently abridged into cross-linked (*subordinate*) themes, and ultimately into a smaller number of global (*superordinate*) themes (see Smith & Osborn, 2008; Smith, Flowers & Larkin, 2009).

### **Results and discussion**

Analysis gave rise to three core superordinate themes, outlined below.

#### **Superordinate theme 1: "I worry about my partner(s) and for my partner(s) in competition environments."**

Although there is a strong body of research that emphasises the anxiety-allaying force of peer support and interpersonal bonds (Abrahamsen *et al.*, 2008), participants in this study highlighted some ways in which such partnerships can actually *increase* anxiousness when competition is at stake. Anxiety states were reported to arise from three inferences pertaining to potential public outcomes (what we might conventionally think of as 'stressors'):

1. Concern *for* a gymnastic partner's success, both (altruistically) in terms of their own wellbeing and (more egotistically) how it reflects upon oneself in coordinative performance, i.e., "What if *they* fail?" (a largely performance-oriented anxiety).
2. Concern *about* negative relationships with a peers and partners, i.e., "Will they like me, and can they work with me?" (a predominantly social anxiety).
3. Fear of letting others down, i.e., "What if *I* fail?" (both performance-oriented *and* social). For example:

**G2:** *[I]t's just being stressed about [the regular performance partner] knowing [the routine]. Like, if she forgot it then she'd be upset, so I tend to stress out more about her than me.*

**G5:** *You really want to do well for your coach and your partner.*

**G4:** *Because you're working with someone else, you're conscious...that you're going to let them down.*

Issues 2 (essentially, fear of social isolation) and 3 (fear of failing others) are well documented in extant literature on general anxiety stressors (Bandelow *et al.*, 2004). They also highlight a strong interlacing of general social and domain-specific anxiety stressors at the amateur level that is rather less well documented in psychology oriented towards 'elite' sports. Regarding issue 1, however, and while the concern that failure by a third party will reflect badly upon one's self is also a well-documented cause of anxiety in many domains (Englert & Bertrams, 2012), more novel here is the matter of 'empathic experience'. This echoes a core theme in Erving Goffman's (1956) classic text *Embarrassment and social organisation*, wherein it is observed that, much as people experience embarrassment about things they have themselves done, an equally flesh-crawling sensation can arise from embarrassment *for* someone else – indeed, a great deal of modern situation comedy depends upon this fact. The matter of anxiety for others is not a strong theme in extant literature on public performance, yet was recurrently articulated as a core problem by the participants in this study. This may well be a function of a general de-emphasising of the importance of social bonds (often framed as 'distractions') encouraged among high-level performers (Coakley, 1992) in all fields, and not least sports; a process which is largely absent at grassroots. Thus, far from being an exclusively counter-anxious factor, close social bonds can themselves form bedrock on which a particular form of anxiety is built in performance contexts.

#### **Superordinate theme 2: "I struggle to balance my athletic life and my wider life."**

Closely allied to the final aspect of superordinate theme 1 discussed above was a perception that serious involvement in gymnastics and a wider social life were (a) often mutually obstructive and (b) difficult to balance in such a way that one could draw the maximum benefit from each. These perceptions, in turn, drove two sub-forms of anxiety:

1. Anxieties arose around the participants' own abilities to meet wider social expectations (idealistic); and
2. Participants also experienced stress around issues of time management, activity prioritisation, and balancing the social

identities of a 'gymnast' and a 'regular person' of one's age and social position (practical).

For example:

**G2:** *...fitting in homework and stuff, especially because it's like GCSE year for me and next year, and then there's now more training sessions than there was before.*

**G4:** *[I]t tends to be not that I'm physically... worried about the gymnastics but it's how it's sort of coinciding with everything else; that I'll often find that my exams at uni or a big piece of coursework coincides with the same weekend that we've got a massive competition....I'll spend five nights in the gym knowing that I should be at uni or should be at home revising and studying and it tends to be that that makes me anxious as opposed to the actual gymnastics.*

**G6:** *Probably because we do so much...having to fit other things around gymnastics is very stressful...like homework, meeting up with friends and just life in general.*

This experienced tension between the demands of a single high-focus activity and 'the rest of one's life' is commonly described in literature on high-end performance in sports and elsewhere (Coakley, 1992). It is, however, once again crucial to be mindful that level of focus and investment is relative to the person doing the focussing and investing (Orlick, 2000). So, a school-age child who cares deeply about their amateur gymnastics (or, indeed, who feels 'trapped' with a particular web of social expectations around it) may be no less psychologically torn between competing identity demands than an 'objectively' high-level performer who may have more obvious social/financial barriers to contend with. Thus, when it comes to the practical business of *allaying* anxiety in more everyday performance contexts, it is not any material measure of importance that necessarily dictates how the matter should be approached, but rather the emotional investment of the performer (Spielberger, 2004).

**Superordinate theme 3: "Public events make me feel anxious, but also make me feel relaxed."**

Finally, participants strongly allied both public performance, and also the scale of competitive events at which they performed, to their experiences of anxiety. There were, however, some putatively dissonant claims from participants regarding this issue:

- Competition itself was conceptualised as both a source *and* reliever of stress, and often concurrently.
- Participants did not necessarily

conceptualise objectively 'larger' events as being automatically more stressful.

These matters require some unpacking.

Firstly, while the *anticipation* of public performance was universally viewed as stressful, the act of performing was generally construed as a mood-neutral release-valve leading to a highly relaxed and comfortable state (except in cases where something had gone badly wrong with the performance itself). For example:

**G1:** *[I]t's only about an hour before I compete I get really nervous, the day before I'm fine, on the way there I'm fine and then just before I go on it's a bit nerve-wracking but then when I'm on the floor or tumbling I just do it.*

**G2:** *Just after the competition you just chill.*

Secondly, it was clear that while – as a rule – 'bigger' competitions were taken to be more abstractly stressful by participants, in practice there was a range of more experiential factors in play that determined just how much anxiety was actually experienced. So while the totems of 'formal' competition could well prove an additional stressor (unfamiliar judges, electronic scoreboards, and suchlike), perceived issues such as 'supportive home turf' and the participant's own chances of success (i.e., 'nothing to lose') could almost reverse the valence of stress intensity. Similarly, 'getting there' (i.e., to the 'main event') was sometimes viewed as more stressful than actually 'being there'. For example:

**G1:** *It's probably the venue, because like if it's a bigger venue there's more people there, so just more people watching, that's a bit more stressful.*

**G5:** *[P]relims is the one that I get most stressed about because obviously I want to get through with my trio.*

**G4:** *[T]he ones that are here like in our home gym are not really stressful. You're in front of people that you know, especially with coaching as well as training. I know a lot of the parents and a lot of the younger gymnasts and they like to see you compete which is really nice, and you go on the floor and there's a whole the little squad that you coach are all cheering and clapping for you which is really nice.*

To reprise a recurrent theme, it is imperative that anxiety within (and about) public performance is viewed as emanating from an experiential field. Even 'performance' itself was not viewed by participants as a self-identical 'event', but as having distinctively different import immediately before, during,

and immediately after. Moreover, the situation of performance was also not taken to be self-identical; what constitutes an 'intimidating' event in which to perform is highly relative to a range of complex interpretations, investments, and preferences (Spielberger, 2004, p. 444).

### Conclusion

Extant research in the sport sciences tend to take into account only anxiety derivative of sport and exercise when encountered in sporting contexts themselves, artificially decoupling the performance domain from individuals' personal lives. This, it is reasonable to assert, is largely connected to a dominant focus upon high-level performance in elite contexts in which such disconnection is common. It is also noteworthy that the majority of research in this field is quantitative in form when, in fact, "...there is so much diversity in anxiety responses that paper and pencil tests capture an incomplete range of the feelings people experience." (Wang, Marchant & Morris, 2004, p. 79). For the participants in this study, stress/anxiety in sporting performance and social stress/anxiety were conceptualised as inextricably co-dependent phenomena, with many subtle and sometimes putatively contradictory facets. 'Social' and 'performance' anxieties need to be understood, thus, as mutually reflexive if research is to reach a fuller understanding of everyday athletes' own psychological realities in this domain, and thus the mental (and physical) health risks to which they may expose themselves.

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