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Case Study: Iain Aberdeen

Managing Performance Pressure in Athletes



Newcastle University



Alice Points

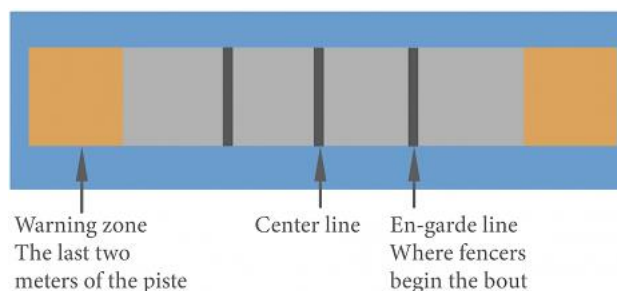
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Contents

Contents		i
Key words		i
1.0. Introduction		
1.1. Introduction		1
1.2. Coach in the Spotlight: Introducing Iain Aberdeen		1
1.3. Pressure and its impact on performance		2
1.4. The Spirit of the Sword: context of fencing		2
2.0. Strategy 1: Pressure Training		
2.1. Introduction to pressure training		3
2.2. Benefits of pressure training		3
2.3. Pressure training in practice		4
2.4. Strategies to take forward		4
3.0. Strategy 2: Refocusing Attention		
3.1. Introduction to refocusing attention		5
3.2. Benefits of refocusing attention		5
3.3. Refocusing attention in practice		6
3.4. Strategies to take forward		6
4.0. Strategy 3: Autonomy Support		
4.1. Introduction to autonomy support		7
4.2. Benefits of autonomy support		7
4.3. Autonomy support in practice		8
4.4. Strategies to take forward		8
5.0. General Discussion		
5.1. Reflections from Iain		9
5.2. Advice from Iain		9
5.3. Summary of applied recommendations		10
5.4. Further resources		10
References		11

Key words

Fencing bout	A period of combat between the two fencers. The bout ends and resets when one fencer hits the other with their sword.
En Garde position	The stance that fencers take on the En Garde line, just before a bout begins.
Fencing Piste	The strip of material upon which the fencers compete (see diagram).



Introduction

Developing the psychological abilities of athletes is an equally important part of coaching as developing physiological performance, particularly when it comes to performing during pressure situations. The aim of this case study is to 1) provide coaches with in-depth examples of how a coach peer helps their athletes manage performance pressure, and 2) provide practical recommendations which can be adapted to coaching practice.

Coach Iain Aberdeen, Head Coach of the Newcastle University fencing teams, has provided insights into how he coaches his athletes to manage performance pressure. Iain mentioned at the beginning of the year that his athletes managed the pressure to perform very well. Remembering this, I reached out to him to ask if he would partake in the case study, and upon his agreement, I interviewed Iain in May 2023. I asked him a number of pre-prepared questions to guide the interview structure, interspersed with follow-up questions based on his responses. The interview combined with previous literature informed the creation of this case study.

The case study starts by introducing Iain, and what pressure is and how it can impact performance. It then introduces the idea of pressure within the context of fencing and discusses Iain's experience helping his athletes manage it. The case study then focuses on three methods to manage pressure, across training and competitions. All three methods are mapped onto existing research to show how Iain's practice relates to what we know in the literature. The case study finishes with some key reflections and advice from Iain, and a summary of applied recommendations that can be used by coaches in their practice.

Coach in the Spotlight: Introducing Iain Aberdeen

Iain was a fencer prior to coaching; he began coaching when he injured his arm and could no longer fence himself. He found that he quite enjoyed it and has now been coaching for nearly 20 years. Iain is the head coach of the Newcastle University fencing teams and also has ties with British Fencing; he coaches from a novice level to World Championship standard, across individuals and teams.

Iain is currently completing a part time PhD at the University of Central Lancaster, looking at mental skills training within coach education pathways.

He has a big interest in sport psychology and is more than happy to discuss this case study further. You can contact him at: ianaberdeen@aol.com



“I've seen so many different things, and such a variety of athletes that have either underperformed or overperformed, emotionally reacted to things, been in very high pressure situations as well as quite easily relaxed atmosphere environments. It's just allowed me to see everything from a huge, broad perspective. And then, I suppose over the years, because I've been coaching so long, I've had the luxury of making mistakes with athletes and learning from my mistakes with athletes.” – Iain Aberdeen

Pressure and its impact on performance

Pressure refers to the feeling of a perceived **increased importance to perform well**, which can often occur at competitions when there are performance expectations from people like coaches, parents, or the athlete themselves [1]. It can be experienced relatively suddenly such as during key moments of a competition (e.g., tie-break, penalty, etc), or more chronically, perhaps due to needing a certain outcome (e.g., title deciding game) or being the favourite in an event.

The perceived pressure experienced by athletes during competitions can often intensify their anxiety and apprehension, leading to a detrimental phenomenon known as a "choke performance" [2]. This overwhelming state can cause a sudden and significant decline in their overall performance. However, not all athletes choke in pressure situations. In fact, research shows some athletes excel during pressure situations and demonstrate a "clutch performance". [3] During such moments, they experience heightened awareness and skill control, and optimised energy levels, allowing them to execute skills to the highest level [3]. Successfully managing pressure in sport can be the difference between clutching and choking in key moments.

The Spirit of the Sword: Context of fencing

Iain's experience with managing pressure:

Iain explained that common high-pressure situations in fencing include 4-all scores when it's first to 5 points, and choosing how to tactically play a team match if the opponent is perceived as much stronger than the athlete.

He has seen the effect of pressure present itself in many ways amongst his athletes. Some have become frustrated and let technical movements give way to aggression, whilst others have become overwhelmed and cried during their bout. With other fencers, Iain could tell they weren't able to handle the performance pressure because of their slouched posture or behavioural avoidance (such as reluctance to assume the En Garde position).

Iain finds it easier to help novice fencers manage pressure as they have less expectations to perform to a certain standard. He noted that it's harder with elite athletes as they experience both internal and external pressure. That is, they know they're good so want to perform well, and they experience more pressure from people's expectations of their ability.

The following three sections describe three of the techniques that Iain uses to help his athletes manage performance pressure: pressure training, refocusing attention and autonomy support.

1 Pressure Training

Known as pressure training, Iain purposefully manipulates training sessions to add extra pressure to athletes, so athletes become used to regulating emotions in a high-stress environment. Pressure training is **well known for improving sport performance** [4] and should ALWAYS be conducted in a safe environment, with support for the athletes. It is often done to practice self-paced skills, such as tennis serves and penalty kicks [1]. However, as demonstrated by Iain, it can also be done for broader pressure scenarios, such as coping with physical and mental fatigue [4].

Benefits of pressure training

Research points to a variety of benefits to pressure training. It **increases self-awareness** of the athlete's responses to pressure, helping them to reflect on their behaviour and adapt accordingly [5]. It also allows them to **build confidence** to withstand stressful situations [6] and it **reduces the likelihood of choking** because the athlete is used to regulating their emotions under stress [7]. In a team environment, pressure training can be used to **promote team resilience** as it forces the team to overcome stressors together [8].

Pressure training in practice

Iain uses task restrictions, such as changing the movements and rules of the bout, to add pressure for the athletes. Some methods he uses to change the movements of the bout include prohibiting fencers from moving backwards, or reducing the playing area, both of which prevent the fencer from running away and so encourages them to be more blade-work orientated. He might change the rules of the bout to needing two hits in a row to score a point, to see if the fencers are able to make continuous hits, or to one-hit fights, where the first fencer to hit the other wins.

"It's interesting when you do that, to watch the tactics change. So some normally quite aggressive, dominant fencers that would push forwards quite a lot, aren't, because they get too scared about getting hit, which is one of the things that we're trying to avoid. So that's a really good indicator of: if there's pressure, do they back off a little bit, or do they stay with their normal characteristics and really push?" [r.e. one-hit fights]

As Iain mentions, sometimes his athletes will change their behaviour under pressure. He consequently uses **video analysis** every 3-4 sessions to video the athletes and discuss why their behaviours changed during pressure training. Ideally, a process of **peer-review** is used: an athlete is filmed by another athlete, and they discuss the video in the presence of a coach, who they can turn to for advice if need be. Sometimes the video might be put on a large screen for a group of 5 or 6 athletes to discuss. Athletes respond well to feedback from peers, perhaps because of the safety-net of being able to turn to a coach for their opinion when needed. Iain reflects that the video analysis creates a **good learning environment** for the athletes and allows them to progress without being spoon-fed answers.

Research suggests video analysis can successfully be used to improve the performance of athletes [9]. A potential drawback is an overwhelming amount of information, so cues (from a coach or teammate) are needed to help the athlete focus on specific elements, such as the release of the ball during a throw [9].

Strategies to take forward

lain's top tips for implementing task restrictions:

- 1) **Understand the athlete(s) and what they perceive as pressure.** Pressure training should evolve from the coach's observations of their athletes. For example, if a basketball coach knows a player takes a long time before passing the ball, they can infer that pressure will be increased if they introduce a 3 second time limit for holding onto the ball.
- 2) **Use your understanding of your athletes to implement team constraints.** Exposing different types of pressure to every team member means everyone is equally equipped to handle pressure and do their part for the team. Also, pragmatically, it is a more efficient use of a coach's time than implementing pressure training on an individual basis with multiple athletes.

"If I watched you perform, and I know you didn't like doing something, I can almost force you to do that by constraining the pitch to see how you reacted, so I can then better support you going further."

Alternative methods to add pressure to training [4]:

- Add **social judgement** by including drills where the athletes are being observed by other athletes.
- Add **rewards/forfeits** to training (e.g., leave 10 mins early after a successful session).
- Let athletes **train under increased fatigue** (e.g., perform a free-throw directly after high-intensity physical exercise).

Please note it is important to **remain ethical** when implementing these recommendations. For instance, consistently punishing underperformance may result in demoralisation and may hinder coach-athlete relationships. Take the needs and preferences of your athletes into consideration when implementing these recommendations, to find the healthy amount to push them. Good practice would be to communicate and set expectations about pressure training at the start of the season and gain consent from all athletes.

2 Refocusing Attention

Iain noted that one pressure that fencers face is the scoring constraints of the sport. When it's only the first to five points, it's crucial that athletes can reset themselves between bouts. If they lose a point and can't disconnect from the hit that's just happened before the next bout begins and the fencer attacks them again, it becomes chaotic and confusing. **Refocusing attention** is the process of bringing attention away from distractions and back to the task at hand [10]. Literature suggests remaining focused can be key to avoiding a choke performance [10].

"That's one of the things that we try to talk about is, "if I'm hit. How do I reset before I go back on for the next hit? Have I got a strategy? Is there anything in place just to like switch off, switch on?"

Benefits of refocusing attention:

One reason why athletes choke under pressure is because they are too focused on task-irrelevant cues (such as the worries from losing the previous point, or noise of the crowd) and their performance suffers as a result [10]. Using cues (words and actions that direct our attention) to refocus concentration to the task at hand is crucial for better performance.

Physical, instructional, and visual cues have been shown to improve performance under pressure by refocusing the athlete's mind on task-relevant cues before they execute a skill [11]. For example, research consistently shows improved performance when athletes use instructional cues [10]. These are often verbal triggers such as a golfer saying "steady hand" to themselves before they putt, but, as seen below with fencers writing messages on their gloves, they can be written too [10].

Refocusing attention in practice:

Iain mentioned all three types of cues when discussing how his athletes refocus their attention and manage the pressure to perform. One athlete uses a **physical cue** to refocus their attention during bouts by performing two high intensity tuck jumps just before they go back to the En Garde line in order to mentally reset. Alternatively, other athletes use **instructional cues**, such as writing a message on their gloves before the competition begins. Then, they simply rotate their hand when they're returning to En Garde line after a bout and see a positive instruction like "breathe" to remind themselves to breathe. Finally, some fencers will use **visual cues** by mentally concentrating on their strategy and where they're going to hit their opposition moving forward.

"One athlete, rather than going straight back to the En Garde in the middle, will turn their back to the opponent for a moment and just think about what they're going to do when they get on the En Garde line. So they're going to visualize themselves moving forward in a positive manner rather than walking back and looking at the opponent that's just hit them and thinking, "Right. They just hit me. So now what am I gonna do?" "

Strategies to take forward:

Work with athletes to find a cue for them to focus on during competitions to refocus attention. Practice using this cue in training, so the athlete becomes accustomed to it. Research suggests it's best to find cues that:

- Focus on the positives rather than the negatives i.e. by avoiding cues starting with “don’t...” [12]
- Focus on the present moment rather than the past or future [12]
- Focus on execution (e.g., force of kick) or external factors (e.g., the ball) rather than the score [12].

An alternative method to refocus attention: TIC-TOC

This method involves switching attention from a non-productive to productive thought by using the phrase TIC-TOC. Any thought, feeling or action that is irrelevant or harmful to what the athlete needs to do in the moment should immediately be recognised and labelled as a “TIC”. The athlete should then switch to a task-relevant focus (e.g., the desired effect of an action, such as optimal ball flight), or a “TOC”. In high pressure situations, athletes should practice becoming aware of TICs and immediately switching them to TOCs [12].

3 Autonomy Support

Another pressure the fencers face is that Iain does not travel to away games, so they often **compete without a coach**. Consequently, Iain creates a hierarchy at home matches where the coach is the 2nd port of call, behind the athlete's teammates.

"It takes the pressure away from the coach not being there, so I don't become an anchor and a safety net from a psychological and a technical perspective"

This alludes to an autonomy-supportive coaching style, in which the coach provides athletes with non-controlling feedback, choice (e.g., over what strategies to use), and avoids controlling behaviour, such as not providing rationale behind any tasks [13]. This style of coaching allows athletes to develop independent to their coaches – the importance of which Iain emphasised.



Benefits of autonomy support

Autonomy-supportive coaching has proved to be beneficial to athletes, with studies showing it increases athletes' motivation, sense of connection to others, self-worth, and performance [14]. Importantly, **athletes in autonomy-supportive conditions have performed significantly better under pressure** [15]. Meanwhile, being more controlling has been associated with increased athlete anxiety and fear of failure [16].

Autonomy support in practice

Iain was with an elite fencer at a major competition, when the fencer, in the middle of their bout, turned around to him and asked for advice on what to do. He realised how reliant some athletes are on their coaches, and that without the presence of the coach, many experience increased perceived pressure because they're not being told what to do. He now ensures his athletes are not reliant on him by creating a hierarchy at matches where the athlete will talk to their teammates after a bout, before having a conversation with him, so the coach is the 2nd port of call. He will still step in when needed, and supports them as a coach, but prefers not to be the first person they converse with after a bout. He mentions that an indirect benefit of this approach is the development of the team's cohesion, as the athletes learn to rely on and trust each other more.

"I go to every single home match. And one of the things that I do is I never sit with the team, I always sit behind them and talk to the individual athletes that aren't fencing more than the ones that are fencing, to try and get the athletes that are observing to understand what's going on. So when they're in the situation without me, then they can support each other."

"I can almost force cohesion. And I could be like, "this person looks like they don't know what they're doing, they need to be doing this on the fencing Piste, when they come off make sure you let them know, because it'll be really good coming from you." And they do that, and it works."

Strategies to take forward

If your athletes struggle with the pressure of not having a coach at every competition, consider the following:

- **Use other athletes to relay information** and tactics to the performing athlete. This still provides the performing athlete with coaching feedback, but also teaches other athletes how to understand the situation themselves to support each other when they are without a coach.
- **Be aware of your own coaching context.** If you are under pressure to perform well as a coach, you are more likely to produce more controlling behaviours [14], such as smothering the athletes and so preventing them from developing their autonomy.

Alternative methods to build an autonomy-supportive coaching style:

- Focus on **athlete development** rather than a must-win-at-all-costs attitude [14].
- **Provide choice** within specific rules and limits i.e. choice over which defensive drill to do [14]
- Provide athletes with **opportunities for initiative taking** and independent work i.e. let athletes know where to find equipment, to encourage athletes who arrive to training early to begin warming up independently [14].

Reflections from Iain

Coaches would benefit from more mental skills training.

Currently, Iain sees coaches either forwarding their athletes' psychological problems onto a sport psychologist, using trial and error to come up with a solution, or not tackling the problem at all.

"What we end up doing is, we have athletes that aren't prepared for pressure scenarios and pressure environments and competitions, because no one's done anything with them. We've done random stuff that's rubbish. There's not a lot of coach education pathways that enable the coaches to actually have the skills to deliver. So why would we expect coaches to be able to do it if they don't know?"

This reflection feeds into Iain's current PhD, which upon completion, he hopes will inform the addition of mental skills training modules in coach education pathways.

The value of authenticity.

Iain often sees coaches changing their approach regularly based on a tweet or something they've heard from peers, rather than committing to a consistent training philosophy. He values having a consistent approach to coaching as this prevents confusion.

"One of the things I try to avoid is just making random stuff up. If someone gives me an idea, I'll consider the idea, reflect on the idea, maybe look for the research on the idea and then try it if I think it's a good idea."

"I'm not saying we shouldn't change. When things are good and we can use them, we should put them into the plan, but not constantly changing from broad ends to ends to ends of ideas."

Advice from Iain

Try to find the research behind your implementations.

Avoid implementing techniques or drills into training just because you've seen it on the internet or heard about it from someone else. Try to find the research behind the idea. Otherwise, you risk more damage than good.

Know your athletes and trust your judgement.

"The key things as a coach are knowing when to intervene, not intervene, but also when to do feedback and discussion. Because sometimes you just need to let people go outside, have 5 mins, calm themselves down. Some people want to talk instantly. And it's about knowing and judging when to do that."

Iain does admit that sometimes athletes can react in random ways to perceived pressure (in his case, from sitting down and crying to throwing all their fencing clothes into a tree), so sometimes knowing your athletes isn't enough. Judge each situation as it comes.

Understand what causes the pressure and what the athlete needs as support.

As mentioned earlier, pressure training can evolve from coach observations – if a coach notices a player likes to run away from fencing attacks, they can reduce the distance the fencer can move to add pressure. However, when adding pressure, it is essential that it is done in a supported environment. It could be close support or indirect support. As a coach, it is important to understand the type of support the athlete responds positively to, in order to get the right reactions.

Summary of applied recommendations

- Consider implementing **pressure training throughout the season**, so athletes become accustomed to regulating emotions in a stressful environment. Understand the athletes and what causes them to feel pressurised, and use this knowledge to implement **task restrictions**, such as reducing the playing area or introducing time limits to score. You could also increase pressure by adding **rewards or forfeits** for athlete behaviour, or by letting the athletes **compete head-to-head** whilst being **observed** by other athletes.
- Work with athletes to **establish effective cues** to help them concentrate and refocus attention under pressure. Ensure cues focus on the positives, the present moment, and either an external factor or the execution of a skill rather than the score. **Be aware of individual differences** between athletes – what is effective for one athlete may not be effective for another. Similarly, some athletes perform best with frequent cues and others with few.
- If you don't consistently attend all matches, ensure that athletes aren't reliant on you by presenting yourself as a second port of call, to **develop the autonomy** of your athletes. This can be done by relaying information and feedback to athletes indirectly through their teammates.
- Try to **find the research behind your implementations** to avoid the risk of causing more harm than good.

Want to learn more?

Pressure training:

- [A review of pressure training in high-performance sports \(Kegelaers and Oudejans, 2022\)](#)
- [Elite coaches' experiences of creating pressure training environments \(Stoker et al., 2016\)](#)

Refocusing attention: [Attention and concentration training in sport \(Moran, 2004\)](#)

Autonomy-supportive coaching style: [Autonomy-Supportive Approach to Sports Coaching \(Occhino et al., 2014\)](#)

Reducing pre-event anxiety: [Choking in sport – ACT on it \(Vealey et al., 2014\)](#)

- In addition to the three strategies given, this paper is also very useful; if you were to read any paper, I would read this. Great overview of pressure and not too hard to digest. Why choking occurs (including the role of anxiety) and ways to manage it are logically laid out with strategies to implement before, during and after competitions. You can access with Newcastle University login credentials.

If you would like any references, more information on any of the research, or have any questions, please contact us using the following emails:

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