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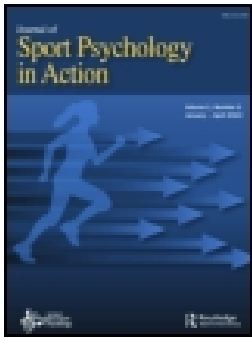
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## Pressure Training: From Research to Applied Practice

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### ABSTRACT



Pressure training (PT) strategically increases pressure during training to improve athletes' abilities to cope with pressure in competition. Although evidence suggests that PT can improve performance under pressure, implementation of PT can be challenging in applied settings. The purpose of this article is to guide sport psychology practitioners and coaches in conducting PT at both elite and lower levels of sport. We first outline basics of PT, including who will benefit from the intervention and when to conduct it. We also clarify the purpose of PT and distinguish it from other forms of coaching that may seem similar. The next section includes steps for conducting PT effectively. Based on research and applied practice, these recommendations address how to create pressure and how to establish training environments that are conducive to PT. Each recommendation describes a principle that can guide practitioners and coaches as they tailor PT to specific sports and levels of competition. We argue that the use of negative consequences, an existing or "baseline" level of pressure, and involvement of coaches are key ingredients for conducting PT that promotes athletes' development.

### KEYWORDS

Applied interventions; coping; performance anxiety; performance under pressure

While preparing for the Tokyo Olympics in 2021, gymnast Max Whitlock described expectations for his performance: "I'm expected to bring back gold, so a year of silvers is seen as a failure and the pressure ramps up" (Majendle, 2021). Whitlock's training reflected the importance of preparing to perform under such pressure. In anticipating the atmosphere of the Olympics during the COVID-19 pandemic, Whitlock described "making myself uncomfortable, with a pommel horse in the middle of an empty hall with a live stream on me to try to prepare a bit differently" (Majendle, 2021). He went on to successfully defend his gold medal.

Sport psychology has provided athletes with various techniques for reducing anxiety (Ong & Chua, 2021), but Whitlock's choice to make himself "uncomfortable" suggests there is value in experiencing that anxiety and nervousness while training. Similar to Whitlock, coaches and sport psychology practitioners can conduct pressure training (PT) to acclimate

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athletes to pressure. PT involves strategically utilizing pressure during training to improve athletes' abilities to cope with pressure in competition (Stoker et al., 2016). Pressure can be created by announcing and applying consequences for athletes if they fail to perform up to a specific standard during training. Consequences can take the form of judgment, such as evaluation by the performance director or a leaderboard that publicly displays each athlete's scores on a drill. Other consequences include undesirable tasks, such as having to clean changing rooms. In addition to added pressure, PT involves support from coaches and practitioners to teach athletes skills for coping with the pressure.

PT parallels exposure therapy for treating anxiety disorders (Foa, 2011). In exposure therapy, clients are intentionally exposed to their anxiety-provoking situation so they can learn that the situation will not necessarily harm them. This experience provides clients with evidence that disconfirms their expectations that the situation will harm them. For example, patients with post-traumatic stress from a car accident might be asked to sit in a parked car and then work up to riding in the car. Recognizing evidence of their safety can enhance how they manage their emotions and behaviors. In PT, athletes can, over time, similarly see evidence that pressure will not necessarily hurt their performance. This training can also increase self-awareness of responses to pressure and build confidence in one's ability to cope (Kegelaers & Oudejans, 2022).

Although PT has potential benefits for performance, achieving those benefits is not necessarily a straightforward process. For example, coaches and practitioners have to create enough pressure to simulate competition but also avoid creating so much that it overwhelms athletes. Once appropriate techniques for creating pressure are identified, coaches and practitioners still need to ensure that PT is effective at developing athletes' performance in competition. As with many interventions, the effectiveness can depend on buy-in from athletes. Consistency of PT is also a critical factor because learning skills requires enough repetition and time between repetitions to consolidate learning (Luft & Buitrago, 2005), so one PT session is unlikely to be enough for athletes to learn and retain coping abilities. In addition, PT generally takes place within physical training sessions, where athletes and coaches might be focused on other priorities in addition to preparing for pressure. Accordingly, practitioners and coaches need to be skilled at designing the intervention as well as integrating it into a team or organization's culture.

Research has examined the complexities of PT. Stoker et al. (2016) developed a framework for creating pressure. Low, Butt, et al. (2022) examined how practitioners deliver PT effectively, and intervention studies have evaluated PT in applied settings (e.g., Kent et al., 2022). Despite the recent advances in knowledge, their existence in the literature does not

guarantee their translation to applied practice. Sport organizations may struggle to translate research to applied practice because of barriers to accessing and understanding research (Holt et al., 2018). Thus, it is important for researchers to communicate findings on PT to coaches and practitioners so that PT is purposeful and backed by evidence.

### **Purpose**

Having conducted research on PT, we aim to facilitate the translation of our findings to applied practice in this article. This research has also been informed by our research team's experience conducting PT with university and international-level athletes. Our purpose is to: (a) distinguish PT as an intervention that has clear intent and is integrated into athletes' existing training, and (b) provide recommendations for designing and delivering PT effectively. These recommendations are intended for both practitioners and coaches. In many cases, practitioners can work with coaches to conduct PT. Alternatively, coaches who do not have access to a practitioner can apply these recommendations to conduct PT on their own.

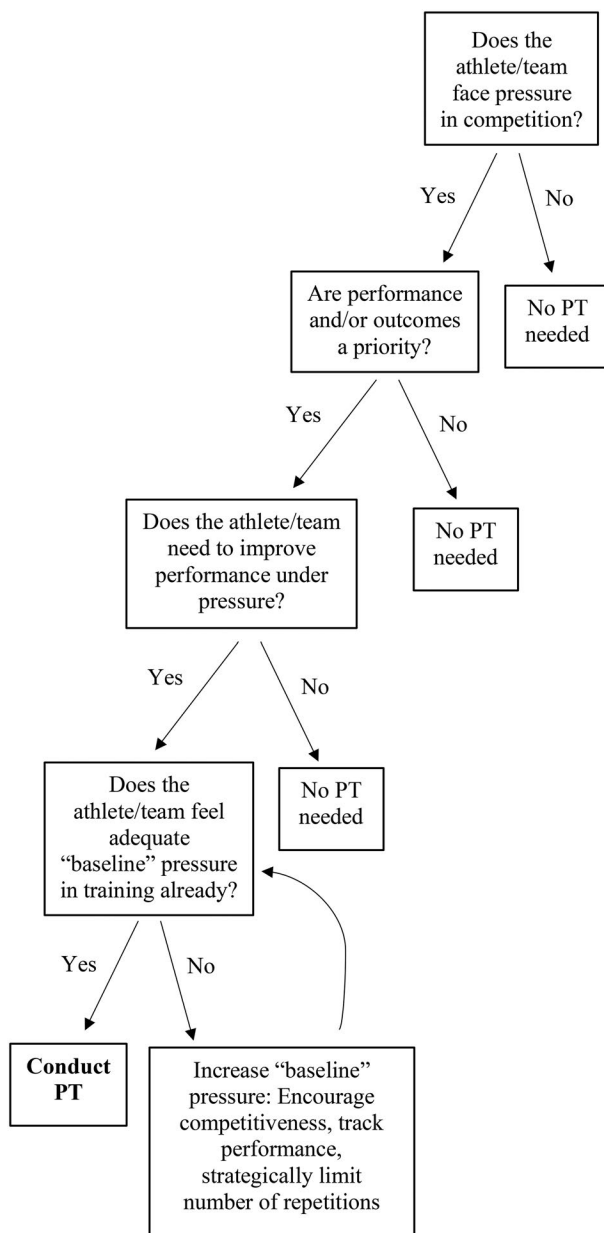
In this article, we first seek to establish a common understanding of PT's nature and objectives. Next, we discuss key decisions and steps for meeting those objectives. There may be more than one valid approach to conducting PT, and the exact delivery and intensity of PT might depend on context (e.g. level of competition). However, we believe that coaches and practitioners can benefit most from reading clear stances on the principles that can make PT effective. Therefore, at the very least, we hope the ideas presented in this article highlight questions and factors to consider within one's specific context.

### **Pressure training basics: Who, what, when, and why**

In this section, we contextualize PT. We explore what PT involves and distinguish it from other forms of training and coaching. Deciding when and for whom to conduct PT can also enhance understanding of the intervention. This decision requires coaches and practitioners to use their judgment, and [Figure 1](#) presents a decision tree that outlines considerations that can inform their judgment. Following [Figure 1](#) can help ensure that PT is conducted to serve the needs of athletes. The sub-sections below provide more detail, evidence, and examples that further help to answer the questions in the decision tree and guide PT's use in applied settings.

#### ***Who: Which athletes to train under pressure***

PT can benefit a range of athletes from different sports and levels of competition. Early studies focused primarily on individual sports or



**Figure 1.** Pressure training decision tree.

individual tasks within team sports, such as free throws in basketball (e.g., Oudejans & Pijpers, 2009). More recently, intervention studies have suggested that PT is feasible and beneficial for team sports, including soccer and basketball (Kegelaers et al., 2021; Kent et al., 2022). This research has demonstrated improved resilience and decision making for individual players as well as improving team functioning, such as communication under pressure (Kegelaers & Oudejans, 2022).

International-level athletes have performed better after PT (e.g., Alder et al., 2016), so individuals who are already highly-skilled can still improve their ability to cope with pressure. They have reported that PT provides the opportunity to practice coping skills and change the way they interpret pressure (Low et al., 2022). PT may also improve performance at lower levels of sport (e.g., Bell et al., 2013; Low et al., 2021). Although added pressure might initially impede skill acquisition for less experienced athletes, developing coping skills in parallel with physical skills via PT could lead to better performance in the long run. For example, perfecting a tennis serve without pressure may not be very useful if the player will then have to learn how to hit that same serve while feeling pressure.

To determine if PT would work in their specific context, coaches and practitioners can first consider whether their athletes will feel pressure during competition (see the first question in Figure 1's decision tree). Athletes can perceive pressure in a variety of scenarios. Elite athletes in a championship game could be an especially visible example, but a high school team could also feel pressure in a playoff game that is personally meaningful to the players. At any level of competition, a bench player could feel pressure to impress coaches during a rare opportunity to play, or athletes returning from injury could feel that they have to prove that they can contribute to their team again. Next, as the second question in Figure 1 suggests, coaches and practitioners can then assess whether their athletes are still expected to perform despite such pressure. The priorities and goals of a coach, team, or athlete could indicate such expectations to perform under pressure. If a team prioritizes winning or an individual is determined to reach the next level of competition, then PT would prepare them to achieve those goals. The right intensity of pressure may vary for different individuals or levels of competition, but the need to acclimate to pressure remains. In contrast, the intervention could detract from teams or programs designed to generate interest in a sport or promote physical activity instead of performance.

### ***What: Creating pressure, not difficulty***

This section's purpose is to clarify what PT involves. Although various approaches to PT exist (Kegelaers & Oudejans, 2022), our main argument here is that coaches and practitioners should aim to create an environment that truly creates pressure. Pressure may seem to be an obvious component of PT, but we propose that creating pressure requires distinguishing it from other aspects of competition, such as the difficulty of a task. In this section, we start by defining pressure. Next, we explain how this definition distinguishes pressure from a task's difficulty. Finally, we discuss why this distinction between pressure and difficulty is important to recognize when designing PT.

To understand what PT entails, it is helpful to define pressure first. Baumeister (1984) defined pressure as the increased importance to perform well. “Importance” can refer to what an athlete, coach, and/or team feels is important. A penalty kick in the World Cup final might be a classic example of pressure, but pressure can appear in various situations, vary in intensity, and come from different sources for different athletes. For example, upcoming selection for a competition is one circumstance that could create pressure. For youth athletes who are trying to make their club’s senior team, observation by the senior team’s coaches could be a source of pressure. Across these examples, pressure’s defining feature is the perception that performance is even more important compared to other moments or competitions. PT seeks to create this increased importance during a training session.

Pressure can easily be confused with a task’s difficulty, so distinguishing pressure from difficulty can further clarify the experience that PT aims to provide athletes. Stoker et al. (2016) found that one of the most common ways in which coaches attempted to increase “pressure” was to intentionally add demands to a task or environment. For example, simulating crowd noise or increasing fatigue may add physical or cognitive demands to a drill. However, when Stoker et al. (2017) tested different techniques for creating pressure, demands were not effective even though they made the drill more difficult. Increased difficulty does not give athletes added reason to value the outcome of the drill. In fact, adding demands could prompt athletes to perceive less pressure compared to easier conditions in which the athletes “should” be able to perform well (Stoker et al., 2017).

Distinguishing pressure from difficulty is important because it has applied implications. Learning to adjust to demands (e.g., distractions in the surrounding environment) is necessary for athletes, but it may involve different skills than coping with pressure to impress a coach or avoid letting teammates down. If coaches and practitioners increase a task’s difficulty without also adding pressure, athletes might develop a false sense of readiness for competition because they have not also prepared for the feeling of pressure. To distinguish between pressure and difficulty in PT, coaches and practitioners should create pressure by using techniques that truly increase the importance to perform. For example, Stoker et al. (2017) found that consequences for performance create more pressure than demands do. More details on selecting consequences are discussed in the recommendations below.

### ***When to conduct PT: Frequency and timing***

The question of when to conduct PT relates to frequency and timing of the intervention. Frequency refers to how often PT is conducted during



athletes' training schedules (e.g., the number of days per week). The optimal frequency may depend on each context. For example, a factor to consider is the number of hours that the athletes spend training in general. Another factor is the time an athlete can afford to spend preparing for pressure in addition to training other skills and tactics. Once these factors are considered, we at least suggest that PT be consistently integrated into training. Athletes need enough opportunity to learn and develop the skills and attitudes that will help them cope with pressure. Although not every training session should be pressurized, infrequent PT (e.g., one day per month) is not enough to develop coping skills. It is true that a given technique for creating pressure could diminish in its effectiveness over time; however, this "wearing off" is not necessarily reason to limit the frequency of PT. Instead, it warrants alternating between different techniques so that PT can still take place consistently.

Although PT should generally remain a fixture in training, some factors can influence the exact timing of the intervention. Timing can refer to the point within a training session and the point in the competitive season when PT takes place. Within a training session, the intent of a given drill can indicate whether or not to add pressure. Introducing basketball players to a new play would not warrant pressure as they learn it for the first time, but pressure could later be necessary to improve the consistency of their execution of that play. Over the course of a season, coaches and practitioners should consider timing of PT relative to upcoming competitions. On the one hand, PT in the lead up to a competition could help ensure that athletes are ready for pressure. On the other hand, stopping PT right before competition could avoid the risk of hurting athletes' confidence if the athletes struggle during PT. With knowledge of their context, coaches and practitioners can consider these factors to decide when to increase or decrease PT.

### ***Why: Training, not discipline***

Some coaches might already use consequences to discipline athletes, but PT is distinct from discipline. When used as discipline, consequences are a *reaction* to an undesired behavior. For example, if athletes show up late for training, they may have to stay late or run sprints. Such consequences can reinforce a team's values (e.g., respect or commitment) or deter a behavior. In contrast, consequences in PT are a *proactive* attempt to train skills for coping with a specific condition (i.e., pressure). It therefore requires creating that condition *during* a given drill. A coach or practitioner would plan and state the consequence before the drill or even collaborate with athletes to determine the consequence ahead of PT (e.g.,

by explaining PT and discussing potential consequences during a team meeting). Athletes are then aware of the increased stakes for performing well. It is also necessary to indicate the performance standard that athletes must reach to avoid the consequence. Standards could include having to make 10 putts in a row in golf or having to win a practice match in table tennis. The standard connects the consequence to performance only, which can help prevent athletes from misconstruing the consequence as a punishment connected to their self-worth or relationship with the staff.

The threat of the consequences creates opportunities to practice coping skills in conditions similar to the ones in which athletes will need those skills in competition (Low, Freeman, et al., 2022). Whereas a workshop or consulting session can introduce the skills, PT helps athletes learn how and when to apply those skills while physically training for their sport. Athletes can become more self-aware of when they feel pressure and how they respond to it (Low, Freeman, et al., 2022), and they can refine their coping skills. For example, they can learn which steps of a pre-performance routine are necessary for them and practice the routine so that it is a habit by time they get to competition.

### **Recommendations for conducting PT**

This section discusses recommendations for planning and conducting PT. Although each sporting context is unique, practitioners and coaches can benefit from more direction than the simple suggestion to “tailor” PT to their athletes. We offer guidance on creating pressure; however, there is more to PT than the pressure itself. The training environment and the way PT is delivered are also important features of PT. Therefore, we recommend how to deliver PT effectively and structure a training environment that complements the addition of pressure. The application of each recommendation may differ across sports and levels of competition, but we hope these recommendations espouse principles that practitioners and coaches can then apply to their specific contexts.

#### ***Transparency about purpose and process***

When coaches and practitioners understand that PT’s purpose is to train athletes’ abilities to cope with pressure, they can take steps to ensure that the pressure helps athletes develop. They can be transparent with athletes about expectations for performance and potential consequences. To gain buy-in for this training that may not be comfortable for athletes, coaches and practitioners can explain that preparing for pressure is part of a coaching staff’s responsibility to prepare athletes for competition. When coaches discuss PT with athletes, practitioners can support them in

distinguishing PT from discipline. For example, they can remind a team that it already trains for anticipated challenges (e.g., an opponent's favorite play) and that pressure is just another of those challenges. In addition, for practitioners and coaches to “walk the talk” when explaining PT's purpose to promote development, they can first provide mental skills training and inform athletes that they will have a chance to practice those skills in PT. They can teach skills specifically for coping with the pressure faced in PT. This transparency and support show athletes that PT is systematic and well-planned, not indicative of a coach's mood or desire to punish behavior.

Clearly communicating PT's purpose can also preserve athletes' relationships with coaches and practitioners. When consequences are used for discipline, they could affect a team's culture or morale. Especially when a consequence is accompanied by verbal admonishment, athletes might feel that the consequence's enforcement reflects their self-worth or their coach's opinion of them as players. However, PT is based on the premise that athletes will face pressure in competition, regardless of their abilities, self-worth, or relationships with staff. If a coach or practitioner explains this reason, athletes may more likely embrace PT because they see that it is an exercise *for* them, not done *to* them (Low, Butt, et al., 2022). In Low, Butt et al.'s (2022) study, one practitioner suggested how he explains the role of PT to athletes: “It's not to harm you. It's not to make you look silly or to force you to make mistakes. It's ‘Actually, we have a responsibility to you to prepare you for potentially extremely stressful situations’” (p. 5). In fact, athletes may appreciate and even desire the threat of a consequence because of the benefit to their performance (Low, Butt, et al., 2022).

### ***Negative consequences train positive responses***

Once athletes understand that PT is intended to improve their performance, we recommend the use of negative consequences to create pressure. In this section, we first define negative consequences and suggest why they may create more pressure than rewards do. Next, we describe how to implement negative consequences in applied settings. Finally, we address concerns about the risks of using negative consequences.

Consequences are negative when they are undesirable to the athlete (e.g., a forfeit or negative judgment) and/or cause the loss of something valuable (e.g., playing time). In Alder et al.'s (2016) study, international-level badminton players faced potential for negative judgment when their performance in training was ranked against their peers. In Lawrence et al.'s (2014) study on golf putting, each participant started with a monetary reward but would lose an amount after every missed putt. See [Table 1](#)

**Table 1.** Examples of negative consequences.

Judgment	Leader board displaying performance scores in training Observation by authority figure (e.g., senior team head coach) Performance rated by coaches
Forfeits	Sitting out remainder of training session Singing in front of teammates Deselection for next competition Cleaning changing room Teammates must do sprints/pushups

for additional examples of negative consequences. These negative consequences contrast rewards for good performance, which Stoker et al. (2019) found do not create pressure effectively.

Although some consequences seem to also offer positive outcomes (e.g., positive judgment for performing well), the potential loss may be the “active ingredient” for creating pressure. Baumeister et al. (2001) observed that for many psychological phenomena, “bad is stronger than good” (p. 323). The fear of making a poor impression can feel more salient than the opportunity to make a good impression. This fear can affect behavior too because athletes can be susceptible to loss aversion bias, or the motivation to avoid losses more than to gain something of similar magnitude (Elmore & Urbaczewski, 2021). Forfeits or judgment can magnify this desire to avoid loss.

Coaches and practitioners can combine the recommendation to use negative consequences with their knowledge of their athletes. Consequences can be more effective if they are also personally meaningful to athletes. For one boxer who would commute to his national team’s training center, his consequence was having to stay at training camp an extra day instead of going home as early as possible like he preferred. Negative consequences also carry weight when they have implications for the athlete’s career or opportunities in the sport. For example, one international-level trampolinist has described practice competitions that influenced selection: If she did not meet coaches’ performance standards, she would not be selected for upcoming competitions. In both of these examples, the consequence was not fleeting or trivial and could instead impact athletes beyond a single moment or training session (Low, Freeman, et al., 2022). That is, athletes could not simply “get it over with” in a few seconds like they would with running a sprint or doing a few pushups as their consequence. Although training may never fully replicate competition, PT can approximate the pressure of competition if consequences truly raise athletes’ perception of the need to perform well (Low, Freeman, et al., 2022).

Some coaches or practitioners might hesitate to apply forfeits or judgment that make athletes uncomfortable and anxious, but remembering PT’s purpose can ease concerns. Negative consequences may appear to encourage athletes to “play not to lose” (i.e., avoid risk, play cautiously)

rather than “play to win.” However, the purpose of PT is to train that ability to “play to win” even under conditions that make doing so uncomfortable (i.e., pressure). PT parallels exposure therapy in this way. Exposure therapy seeks to activate a patient’s fears so that the patient learns that a certain situation is actually safe (Rauch & Foa, 2006). Similarly, PT creates pressure under which athletes may initially struggle, but systematic exposure to it allows them to learn that they are still able to perform. The comparison to exposure therapy also reassures the use of PT with athletes who struggle with pressure, performance anxiety or fear of failure. In fact, these athletes may have the most to gain from PT. As therapists do in exposure therapy, coaches and practitioners can increment pressure gradually such that athletes are not overwhelmed. Without facing conditions that require them to cope, athletes are less likely to develop the skills to cope when such conditions occur in competition.

### ***Establish “baseline” pressure***

Consequences may amplify pressure, but they are not a “silver bullet” to make up for a lack of competitiveness or intensity in training. For athletes to take the possibility of consequences seriously, some amount of pressure may need to exist already in the training environment. This “baseline” pressure could come from internal competition for playing time, a culture committed to performance, or a desire to impress coaches. If a youth team focuses on fun and learning the sport, a consequence contingent on performance likely will not raise pressure because players are not used to being held to performance standards. Even at higher levels of sport, training can lack competitiveness if teammates are too accustomed to training with each other or starters are not in danger of losing their starting position. Few ethical consequences are likely to be strong enough to create pressure on their own if performance in training is not already truly valued.

Rather than aim for a sudden spike in pressure, coaches and practitioners can first increase pressure incrementally in a team’s typical training if baseline pressure is lacking (see [Figure 1](#)). For example, tracking key statistics during practice and posting them in the locker room could encourage athletes to value each repetition or small-sided game. At select times, coaches could also limit the number of full practice games (e.g., 5-on-5 in basketball) or whole routines within a training session so that athletes have to perform without multiple chances to try again. Establishing this baseline pressure can prime athletes for PT, and PT can then serve as an even more focused effort to train abilities to cope with pressure.

Because baseline pressure is not easily quantified in applied practice, determining when an environment is conducive to PT may be more of an art than an exact science. Practitioners and coaches can gauge when

additional pressure would be consistent with a team's existing standards for performance in training. For example, a team's goals could indicate whether or not to prioritize performance under pressure. PT is likely appropriate if a team is determined to achieve a specific outcome that will require facing pressure, such as making the playoffs or winning a championship. The addition of consequences should not appear as a gimmick to motivate athletes but rather as a logical progression to achieving goals. The more emphasis athletes and coaches place on performance in training, the more likely PT will resemble competition. As [Figure 1](#)'s third question suggests, practitioners and coaches can also gauge whether their team needs to improve performance under pressure. If the team often performs well in training but struggles in competition, then pressure could be the aspect of competition that is missing in training.

### ***Involve coaches throughout PT***

A key responsibility of practitioners is to involve coaches in PT. Although coaches can lead PT on their own, it may often be the case that a practitioner recommends PT to a coach. Once coaches agree to use PT, they can help tailor it to their athletes (Low, Butt, et al., 2022). Practitioners can talk to coaches about how and when their athletes have felt pressure, and these conversations can help identify potential consequences to use. Practitioners can also work with coaches to align PT with the skills or tactics that the coaches already plan to emphasize in the training session. Coaches are likely the ones who know which standards of performance are necessary for an upcoming competition or specific opponent. Aiming for these standards can make PT more meaningful to athletes than if consequences are contingent on arbitrary ones. While PT sessions take place, coaches can remind athletes of the consequences and reinforce the performance standards. After PT, coaches can lead or contribute to debriefs for athletes to reflect on how they cope with pressure and connect PT to scenarios they might encounter in competition.

Given that the coach is often the head of the staff working with the athlete(s), it is important that the coach understands and embraces PT before it occurs. Whereas other interventions take place separately from physical training (e.g., goal setting), PT is integrated into training sessions. Practitioners conducting PT are therefore operating in a time and place that is typically the coach's domain. Involving coaches in decision-making, such as choosing consequences, can show them that PT is a way to enhance their training session—not the practitioner's attempt to take over the training (Low et al., 2022). PT needs to be conducted consistently, and coaches may be more likely to continue to prioritize PT if they have invested time and effort into it.

When coaches actively engage in conducting PT, their investment can set an example for athletes to follow. Instead of seeing PT as a novelty, a team can see it as a regular part of training if coaches are equally involved in it as they are in other aspects of training. Even if athletes are the ones who select how to create pressure, coaches can add layers to the need to perform well. Their involvement demonstrates that performance in training is important not just to avoid a consequence but for the larger purpose of preparing for competition.

Practitioners should embrace the collaborative nature of PT, but they are the ones who may need to drive this collaboration. Below are steps practitioners can take to do so.

### ***Communicate that PT is a shared responsibility***

Practitioners should meet with coaches to explain the value of PT and design the intervention together. These discussions should include agreeing on the time and effort that coaches will need to commit to PT and the reasons that their involvement will yield better results (e.g., athletes' buy-in). They can also anticipate other priorities that might compete for coaches' time and then agree on roles in PT. This way, coaches can understand what they need to do to make PT an integral part of training rather than a one-time event.

### ***Utilize coaches' knowledge***

Coach involvement is as important for the design of PT as it is for generating athletes' buy-in. Because they know their sport and league, coaches are likely in the best position to identify the situations in which their team/athlete will need to cope with pressure. Because they know their athletes, coaches may be able to assess whether a proposed consequence would create pressure for their athletes. Practitioners can point to this coach-specific knowledge to explain why coaches need to be involved when planning PT.

### ***Train coaches' observation and debriefing skills***

To train coaches to lead or contribute to debriefs, practitioners can suggest questions to ask athletes after PT. Some questions may target athletes' self-awareness about their performance during PT (e.g., "What did you do that helped/hurt you in this drill?"), and other questions may prompt athletes to reflect on coping skills (e.g., "How well did you stick to your pre-shot routine?"). If needed, training observational skills can help coaches tailor debriefs to specific areas of improvement for the athletes. For instance, golfers might rush their pre-shot routine, or Tae Kwon Do athletes might fixate on the scoreboard. Coaches can then directly address these tendencies of athletes during debriefs.



## Conclusion

This article began by describing how gymnast Max Whitlock prepared for the pressure of the Olympics. Not every athlete may have the same desire to make themselves “uncomfortable” in training like Whitlock, so coaches and sport psychology practitioners can conduct PT to train athletes’ abilities to perform under pressure. Research on PT has advanced, and we have attempted to guide coaches and practitioners in applying findings from that research. We offer four recommendations. First, PT’s purpose is to develop athletes and their performance, so practitioners and coaches should be transparent about this purpose. Athletes can then understand the value of PT, even if the training is stressful or uncomfortable. Second, PT’s purpose also informs our recommendation to use negative consequences to create pressure. Compared to rewards or increased task difficulty, negative consequences may more effectively generate the sense of judgment or threat that athletes need to practice overcoming.

The creation of pressure might be the most prominent feature of PT, but the existing culture and training environment can be equally important. In our third recommendation, we suggest that practitioners wait to conduct the intervention until the team or athlete regularly trains with a certain baseline level of pressure that consequences can then amplify. Practitioners can help coaches develop a team culture that values competitiveness and performance in training before they systematically train performance under pressure. Finally, although practitioners have an active role throughout PT, they should also involve coaches. PT is unlikely to make a lasting impact on performance if it remains a novelty run by the practitioner, and it may be more regularly integrated into a team’s training if coaches share responsibility for the intervention.

Where applicable, the data that support the findings of this article are available from the corresponding author.

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