

# **DEVELOPING TEAM RESILIENCE IN HIGH-PERFORMANCE WOMEN'S FOOTBALL**

**By**

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*A thesis submitted in partial fulfilment of the University's requirements for  
the Degree of Master or Doctor of Philosophy*

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## **Abstract**

Previous research explored the construct of team resilience in high-performance contexts, suggesting that it can be developed, but empirical evidence is limited. This research aimed to address this gap by developing, implementing, and evaluating an evidence-based team resilience intervention in high-performance women's football. The series of studies involved a needs assessment, including focus groups with five football teams and an expert panel to identify contextual stressors, existing resilience practices, and perceived gaps. Based on these findings, a season-long resilience intervention was co-produced and implemented with a professional women's football team. A multi-level approach was used to assess resilience, with team resilience measured by the Characteristics of Resilience in Sports Teams Inventory (CREST) and individual resilience assessed by the Brief Resilience Scale (BRS). A post-intervention process evaluation was conducted with 12 participants. At the individual level, participants' resilience scores did not demonstrate a statistically significant change over time, suggesting sustained levels of resilience. Conversely, at the team level, the resilient characteristics subscale of the CREST displayed a positive trend at the beginning of the season but thereafter a statistically significant decline was evident. The team vulnerabilities subscale of the CREST showed a statistically significant increase. The process evaluation of participants' lived experiences of the intervention identified positive impacts and important features for effective intervention design. Finally, the research aimed to examine the insights and experiences of a sport psychologist conducting interventions in a professional sport to highlight challenges faced and strategies for successful interventions. The findings advanced the field of psychology by developing and implementing the first longitudinal multi-level team resilience intervention in high-performance women's football, revealing temporal changes and their impact for practitioners. Additionally, the findings demonstrated the importance of complementary measures for enhancing insight into intervention effectiveness, along with in-depth practitioner led insights from working in this performance context.

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## **Authors Declaration**

I declare that this thesis and the work presented in it are my own and have been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University.
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
3. Where I have consulted the published work of others, this is always clearly attributed.
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
5. Where elements of this work have been published or submitted for publication prior to submission, this is identified and references given at the end of the thesis.
6. This thesis has been prepared in accordance with the Staffordshire University and Buckinghamshire New University regulations.
7. I confirm that if the submission is based upon work that has been sponsored or supported by an agency or organisation that I have fulfilled any right of review or other obligations required by such contract or agreement.

Adrienn Szabadics

# Scholarly Outputs Arising from the Thesis

This thesis includes a manuscript published in a peer-reviewed journal. The data from this thesis has also been presented at various Institutional and National conferences. The details of all outputs related to this thesis are below:

## Peer Reviewed Research Outputs

### Articles

Szabadics, A., Morgan, P. B. C., Sarkar, M., McEwan, D. & McCormack, F. (2025). Team resilience in high-performance women's football: Contextual stressors and opportunities for development. *Journal of Applied Sport Psychology*, 37(1), 23-48.  
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### Conferences

Szabadics, A., Morgan, P. B. C., Sarkar, M., McEwan, D. & McCormack, F. Developing Team Resilience in Women's High-Performance Sport. Research Colloquium, Buckinghamshire New University, June 2022.

Szabadics, A., Morgan, P. B. C., Sarkar, M., McEwan, D. & McCormack, F. Team Resilience in Women's High-Performance Football: Contextual Stressors and Opportunities for Development. British Psychological Society Division of Sport and Exercise Psychology Annual Conference. Poster presentation. Edinburgh, 2023.

Szabadics, A., Morgan, P. B. C., Sarkar, M., McEwan, D. & McCormack, F. The intervention did not yield statistically significant positive results – what now? Research Colloquium, Buckinghamshire New University, November 2023.

Szabadics, A., Morgan, P. B. C., Sarkar, M., McEwan, D. & McCormack, F. Tales from Delivering a Season Long Intervention in Professional Women's Football. Research Colloquium, Buckinghamshire New University, November 2024.

## **Workshops**

Szabadics, A., Morgan, P. B. C., Sarkar, M., McEwan, D. & McCormack, F. Team

Resilience Research in Women's Football. Online workshop delivered to sport psychology practitioners working in professional women's football. June 2022.

Szabadics, A. Resilience and Stress Tolerance Skills. Invited online workshop delivered to Agile Methodology in Education (AGME). January 2023.

# Chapter One: Literature Review

## 1.1 Introduction

Over the course of a lifetime, individuals will belong to at least one, but more likely multiple different teams. These teams will have varying contexts, formalities, and timespans, ranging from being a part of a debate team at school, a finance team in the workplace, a recreational basketball team on weekends to even a professional football team. While being a part of a team, individuals must collaborate and coordinate with each other to achieve their shared and individual goals (Hackman, 2012). Despite the obvious disparities in how these teams operate, one common experience they all share—regardless of the context—is an adverse event that disrupts their normal levels of functioning. These events may occur multiple times throughout a team's lifespan and with varying degrees of difficulty; however, adversity remains a consistent challenge across all contexts. For instance, an organisation going through leadership changes, a football team conceding a last-minute goal, or a basketball team missing their key player due to an injury. Some teams are better able to manage such challenges and overcome setbacks more effectively than their counterparts. Considering that adversity is inevitable, it is imperative that researchers explore the ways in which teams who are less successful at managing adversity can develop processes that allows them to overcome these challenges.

The concept of “bouncing back from” (West et al., 2009, p.253) “withstanding” (Alliger et al., 2015, p.177) or “overcoming” (e.g., Amaral et al., 2015, p.1184) adversity has been addressed through the study of psychological resilience. Research into psychological resilience has initially focused on individual resilience (Kossek & Perrigino, 2016), examining contexts where substantial adversity took place for example, terrorism (Bonanno et al., 2007), childhood sexual abuse (Bogar & Hulse-Killacky, 2006), death of a parent (Greeff & Human, 2004), or

investigating a sample of Olympic athletes (Fletcher & Sarkar, 2012). In the context of Olympic athletes, individual resilience can be defined as “the role of mental processes and behaviour in promoting personal assets and protecting an individual from the potential negative effect of stressors” (Fletcher & Sarkar, 2012, p.675). Fran Kirby is an exceptional example of an England International and Olympic athlete who demonstrated admirable personal resilience as she had to overcome many challenges throughout her football career. For instance, the sudden death of her mother at the age of 14, battling depression, being diagnosed with pericarditis with the risk of never playing football again, and persistent injuries (Hill, 2021). Since then, Fran Kirby has played a key role in England’s victory in the 2022 EUROS taking place at Wembley. Winning this iconic tournament did not just require personal resilience from the players themselves, but also incredible team resilience as the squad fought to overcome a myriad of on and off pitch stressors.

In sport, stressors come in many shapes and forms e.g., organisational stressors, competitive stressors, or personal stressors (Sarkar & Fletcher, 2014) affecting athletes and sport teams differently. Thus, following the early enquiries into individual resilience, increased attention has been given to team resilience across various fields to understand how groups of individuals overcome adversity (Chapman et al., 2020). A context that is nearly synonymous with inevitable team level challenges is the field of high-performance sports. Team resilience within the context of high-performance sport is defined as “a dynamic psychosocial process which protects a group of individuals from the potential negative effect of the stressors they collectively encounter. It comprises of processes whereby team members use their individual and combined resources to positively adapt when experiencing adversity” (Morgan et al., 2013, p.552). The sporting arena is often characterised by high-pressure, but sports teams that can withstand the negative effects arising from adversity are often rewarded with the highest prizes of their careers.



An example of a team that overcame substantial adversity and demonstrated remarkable resilience was the Spanish national team in their journey to winning the FIFA Women's World Cup in 2023. Their preparation for the tournament started with key players (known as 'las 15') stepping down as they did not agree with the appointment of their head coach and the standards around the camp. The federation refused to support the players concerns, instead demanding an apology from them as well as giving their full backing of the appointed head coach. The Spanish national women's football team could have fallen apart numerous times, but instead they demonstrated incredible unity, passion, and determination to fight for winning the World Cup. This battle has been reported by one of the players on her social media channel:

It has been the most demanding and incredible experience I have experienced in my sporting career. A number of mixed emotions that make you understand the number of values that this sport has. I am proud to feel Spanish, to be able to defend this shirt and to feel the warmth of all of you. (González, 2023)

Whilst the team has come away with the gold medal, their celebration was dampened by a non-consensual sexual act that occurred between a player and the federation's president. In a statement, the affected player declared that "we as a team do not deserve such a manipulative, hostile, and controlling culture" (Hermoso, 2023). Since then, both the president and the head coach have left the team, yet again signalling the Spanish team's astonishing rise against an incredibly challenging environment, demonstrating team resilience.

Another example where a significant stressor could have impacted a team's performance negatively, was seen in the 2022 Winter Olympics during the women's 3000m short track final. The Netherlands was overtaken by China; however, China's lead was short-lived as the Netherlands took their lead back moments after, displaying team resilience. What was astonishing during these few seconds is that the Netherlands demonstrated outstanding team effort towards a common goal as they managed to not simply take the lead back but also

increase their lead, winning with an Olympic record. The Dutch team had dedicated their performance to their late teammate whom they sadly lost 18 months prior to the Olympics, "It was for Lara, our teammate... she gives us strength and it's also thanks to her that we're here. She's in our mind and in our hearts. We feel her presence and strength." (BBC Sport, 2022). Similarly to the Spanish national women's football team, the Netherlands demonstrated team resilience, unity, and determination in reaching their goal despite experiencing significant adversity in the build-up of the Olympic Games.

Team resilience is dynamic, meaning that it changes over time, depending on numerous factors such as the context, or available resources both at the individual and team levels. The concept of time has been suggested to be paramount in studying psychological resilience (e.g., Gucciardi et al., 2018) to enhance our understanding. In the context of sports, where there can only be one winner, there are plenty of examples when teams were unable to overcome adversities. However, many teams have demonstrated resilience years after an unsuccessful event. For instance, let's suppose that China wins the next Winter Olympics, and the Netherlands comes in second place. This would indicate that China demonstrated resilience by outperforming the Netherlands. Though the example is purely hypothetical, it signifies the importance of a) accurately capturing adversity and the resilience response, and b) longitudinal assessment of the team's lifespan. In summary, this introduction highlights the widespread occurrence of adversity in team settings, emphasising the importance of understanding how teams—across various contexts—navigate and overcome challenges. It also underscores the dynamic and multi-level nature of team resilience, particularly in high-performance sports, and the need for longitudinal studies to capture how teams respond to adversity over time.

## **1.2 Literature Review Overview**

In the introduction, a concise overview of the study of individual and team resilience is presented, providing examples of individuals and teams demonstrating resilience within the

realm of high-performance sport. The following sections offer a more comprehensive overview of the literature, organised into two parts. Part One explores the scientific construct of individual and team resilience. This includes empirical findings of individual resilience in high-performance sport and the emerging theoretical frameworks of team resilience within various performance contexts, such as high-performance sports, the military, and healthcare settings. To gain a deeper understanding of team resilience, concepts that represent different aspects or dynamics of team functioning, which may influence team resilience are also explored in Part One such as teamwork, collective thriving, collective collapse, and emotional contagion. The final focus of Part One is exploring the different methods through which individual and team resilience can be measured, including scientifically validated scales, observations, physiological markers, and various qualitative approaches. Part Two provides an overview of the ways in which individual and team resilience can be developed, beginning with intervention design and frameworks within sport psychology, along with effective practitioner skills for delivering these interventions. Part Two also contains empirical findings on interventions targeting the development of individual and team resilience are discussed. Lastly, the rationale for the study, its underlying purpose, and the detailed structure of the thesis are presented. This includes an outline of the key objectives and how the subsequent chapters are organised to provide a comprehensive exploration of the development of team resilience within high-performance women's football.

## **Part One: Defining and Conceptualising Individual and Team Resilience**

### **1.3 The Scientific Construct of Individual Resilience**

The field of psychological resilience aims to understand why some people can withstand and even thrive on the challenges and pressure they experience in their lives (Fletcher & Sarkar, 2013). The term resilience derives from the Latin verb *resilire*, which

signifies leaping back or rebounding (Fletcher & Sarkar, 2013; Vella & Pai, 2019). Initially rooted in ecology and scientific domains wherein the ability of an ecosystem (Vella & Pai, 2019) or a resilient metal (Lazarus, 1993) to bounce back was emphasised, resilience has now assumed a psychological connotation.

Resilience has been studied since the early 1970s (Garmezy, 1974; Werner et al., 1971), where the concept was understood as either present or absent in an individual (Luthar & Cicchetti, 2000). For example, some of this early research focused on understanding why certain children who grew up in poverty prospered while others languished (Werner et al., 1971). Since then, the field of resilience research grew in popularity which might be attributed to a paradigm shift detailed by Richardson (2002). Accordingly, researchers started to focus on the identification of individual strengths as opposed to looking at risk factors leading to psychosocial problems (Richardson, 2002). As such, positive psychology constructs such as resilience, optimism and happiness gained traction (Vella & Pai, 2019).

The increase in resilience research led to the development of a number of different definitions and conceptualisations that still seem to divide researchers and cause some level of confusion in the field. For instance, researchers collating the definitions and conceptualisations of resilience (Denckla et al., 2020; Fletcher & Sarkar, 2013; Vella & Pai, 2019; Windle, 2011) identified that resilience has been considered a personal characteristic (Ahern et al., 2008; Connor & Davidson, 2003), a stable personality trait (Hu et al., 2015), a dynamic process (Curtis & Cicchetti, 2007; Luthar & Cicchetti, 2000), and an outcome (Zautra et al., 2008). Despite the efforts of researchers and the growing body of literature, there is still no agreed definition and conceptualisation of resilience. Nevertheless, some commonalities can be found among the various definitions. According to Masten (2001), psychological resilience incorporates two distinct features, the experience of an adversity or significant challenge, and the ability to adapt positively despite this adversity.

The concept of resilience is defined by the American Psychological Association as “the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands” (American Psychological Association, 2018). In a similar vein, Hartmann et al. (2022) proposed a process-oriented approach to resilience, arguing that it offers the most comprehensive view in the field of psychology. They emphasised that a process perspective incorporates both exposure to adversity and individual responses to adversity, which involve affective, cognitive, and behavioural mechanisms. Moreover, it incorporates trait, capacity, and outcomes perspectives (Hartmann et al., 2022). Fletcher and Sarkar (2013) suggested that it is the ethical responsibility of researchers in this field to regularly review and refine the definitions of resilience in order to better reflect the experiences of the individuals whose lives they study. It is likely that the field will continue to evolve, and researchers might not achieve a unanimous agreement of the definition and conceptualisation of resilience due to the contextual disparity of their researched settings.

### ***1.3.1 Empirical Research Findings in Sport Psychology***

In the context of sports, resilience has commonly been conceptualised as a process (Bryan et al., 2018; Fletcher & Sarkar, 2012; Gupta & McCarthy, 2022). Fletcher and Sarkar (2012) conducted a study on a sample of 12 Olympic champions, consisting of 8 men and 4 women, with the objective of exploring psychological resilience in sport performers. The age range of the participants spanned from 33 to 70 years old, and they had won their medals between the 1960s, 1970s, 1980s, and 2000s. The study revealed that various psychological factors related to an individual’s personality, motivation, confidence, focus, and perceived social support protected them from the potential negative effect of stressors. These factors influenced their evaluation of challenges and metacognitive processes, ultimately fostering a facilitative response, resulting in optimal sport performance (Fletcher & Sarkar, 2012). In

addition, the authors highlighted the importance of aligning psychological factors with the environmental demands faced by individuals, underscoring the importance of a contextual assessment. Indeed, Gupta and McCarthy (2022) noted that Fletcher and Sarkar's (2012) study was limited to Olympic champions, suggesting potential concerns regarding its ecological validity when applied to different populations.

Gupta and McCarthy (2022) developed the sporting resilience model through a systematic review of resilience in sport performers. This review included 92 studies, consisting of 71 empirical studies (quantitative, qualitative and mixed methods), 14 conceptual, and 7 review studies. In their resilience meta-model, the experience of adversity is filtered through an individual's biopsychosocial protective filter, which includes for example social support, optimism and sense of control. The resources available within this protective filter determine the impact of the adversity and shape a specific trajectory of resilience response. Trajectory A represents a minimal disruption in response to low-intensity adversity and/or a strong protective filter, resulting in quick adaptation. Trajectory B, on the other hand, involves four levels, disruption of equilibrium, depletion, metacognitive appraisal, and rebound, as part of the resilience adaptation process. Ultimately, both trajectories result in positive adaptation characterised by positive mental health and positive sport-specific performance levels. The biopsychosocial filter in Gupta and McCarthy's (2022) model builds upon the protective factors identified by Fletcher and Sarkar (2012). Gupta and McCarthy (2022) emphasise that these elements do not possess a fixed rank hierarchy but are rather subjectively evaluated, placing emphasis on individual differences in perceiving different stressors. Furthermore, they contribute to the existing literature by identifying specific resilience trajectories within the context of sports. However, as this model was recently published, no studies have yet examined its application in real-world settings.

More recently, Ashdown et al. (2024) took an observational approach to studying resilience in academy-level youth soccer. To explore the behavioural indicators of resilience, they conducted focus groups interviews with key stakeholders (n=60) from six professional soccer academies and one National Soccer Governing Body. The participants in Ashdown et al.'s (2024) study were employed in a range of roles including coaching (n=35), performance analysis (n=6), head of coaching (n=5), psychological support (n=4), talent identification (n=4), sport science (n=2), strength and conditioning (n=1), physiotherapy (n=1), head of operations (n=1), and academy manager (n=1). The study was two phased spanning an 18-month period where in phase 1, focus groups were conducted to discuss observable on-field behaviours associated with resilience; between phase 1 and 2 the participants collated video clips that illustrated behaviours discussed in phase 1; and in phase 2, a video-stimulated dialogue took place to reflect on the identified behaviours (Ashdown et al., 2024). The researchers identified 36 behaviours that indicated the demonstration of resilience across six themes: (a) teammate support-focused (e.g., verbal support following mistakes), (b) emotion-focused (e.g., displaying emotional regulation), (c) effort-focused (e.g., physical efforts to overcome challenge), (d) rebound (e.g., positive reactions to a mistake), (e) robust (e.g., showing composure when under pressure), and (f) learning focused (e.g., willingness to accept feedback) (Ashdown et al., 2024). By moving away from the focus being on performance as an indicator of resilience, they were able to identify a range of contextually relevant, resilience indicating behaviours. For example, a player may be seen to be demonstrating resilience when they positively influence or interact with their teammates during periods of pressure (Ashdown et al., 2024). While the study advances our comprehension of resilience and what it could look like in academy-level youth soccer, the data collection relied on participants understanding of the construct and it may be possible that their knowledge of resilience is skewed by common misrepresentation of the construct

(Kegelaers, 2023). Consequently, the researchers were only able to infer resilience from the participants verbal and observational records.

In summary, while resilience is a contested term, Kegelaers and Sarkar (2021) suggested that resilience (a) depends on the context (i.e., demonstrating resilience in one area of life does not guarantee resilience in another), (b) can change over time (i.e., demonstrating resilience at one point in time does not mean it will be observed at another time), (c) is influenced by environmental and situational factors, and (d) can be actively nurtured or developed. Resilience in sport is considered vital for success as Galli and Gonzalez (2015) suggested that “the question is not if an athlete will encounter adversity in sport, but instead how will they respond when adversity occurs?” (p.1). Bryan et al. (2018) caution that resilience can be depleted more rapidly during times of adversity than it can be replenished or regained. Therefore, it is essential to cultivate resources that enable effective coping with adversity.

Despite the increasing number of studies focusing on individual resilience within the field of sports psychology, Alliger et al. (2015) argued that a group of resilient individuals does not make a resilient team. For instance, even with a group of resilient individuals, breakdowns in communication, absence of shared mental models, or disputes concerning leadership may occur, leading to the team’s dysfunction. Indeed, many of the findings derived from empirical studies on individual resilience may not be applicable in a team context. Thus, there is a pressing need for a distinct line of inquiry to investigate the mechanisms through which teams can effectively navigate and surmount challenges.

#### **1.4 Theoretical Frameworks of Team Resilience**

In the past decade, a growing number of studies aimed at understanding how teams navigate and overcome adversities in various settings, including the workplace (Hartwig et al., 2020), restaurant industry (Bennett et al., 2010), military (Chapman et al., 2021), information



technology (Sharma & Sharma, 2016), and competitive sports (Morgan et al., 2019). Despite the unique characteristics of each team, researchers endeavoured to draw insights that shed light on the functioning of teams and groups when confronted with adversity. However, as the field of team resilience continues to expand, it appears that each new inquiry brings forth a novel conceptualisation or definition. Consequently, team resilience has been viewed as a capacity (West et al., 2009), a social factor (Bennett et al., 2010), a process (Morgan et al., 2013), a shared belief (Kennedy et al., 2016), an outcome (Flint-Taylor & Cooper, 2017), and most recently an emergent state (Gucciardi et al., 2018). In a systematic review, Hartwig et al. (2020) identified three recurring themes across all the definitions: a) positive adaptation to adversity, b) dynamic nature of resilience, and c) sustained team viability. Therefore, although conceptualisations may vary across different contexts, they nevertheless share notable similarities.

While the primary focus of this thesis remains on the field of high-performance sports, there is an increasing body of team resilience research in other performance domains. An exploration of these other occupational contexts can provide valuable vantage points for resilience researchers. For example, in organisational settings, healthcare, and the military, individuals are required to collaborate in order to overcome the obstacles that they inevitably encounter. Similarly to high-performance sports, these settings are also evaluated based on their performance, which in some cases involves life or death situations for patients (healthcare) or personnel (military), thereby placing significant amount of pressure on individuals. Indeed, teams must adequately prepare for the challenges that may arise, efficiently allocate their resources while facing these challenges, and engage in comprehensive reflection processes to learn from setbacks. Although life or death scenarios are uncommon in sports, athletes operate under tremendous amount of pressure to perform at a high level. A comprehensive exploration into domains that include pressurised scenarios

(e.g., the military) might offer some important insights that transfer to the context of high-performance sports.

The notion of emergent states was initially introduced by Marks et al. (2001) to describe a certain type of team phenomena that is fundamentally different from team processes. According to Marks et al. (2001), “emergent states are constructs that characterize properties of the team that are typically dynamic in nature and vary as a function of team context, inputs, processes, and outcomes” (p.357). Furthermore, as opposed to describing the nature of team members interactions, emergent states portray cognitive, motivational, and affective states of teams. Interestingly, emergent states can be both inputs and outputs. For instance, a team that exhibits low cohesion (an emergent state) may be less willing to address an existing disagreement (the process), which, in turn, may create additional conflict that lowers cohesion levels (outcome) even further (Marks et al., 2001).

Expanding upon the definition of emergent states provided by Marks et al. (2001), Bowers et al. (2017) introduced the concept of team resilience as a second-order emergent state. They proposed that team resilience arises through a combination of other team emergent states such as cohesion and collective efficacy. Bowers et al. (2017) used the Input-Mediator-Output (I-M-O-I) framework by Ilgen et al. (2005) to synthesise previous work and to create a new model for team resilience. Consistent with their conceptualisation of the construct, the inputs that enable resilience are divided into three categories: individual, team, and organisational depending on which level the resilience is being considered (Bowers et al., 2017). Likewise, the processes associated with resilience are also separated into three types: individual, team, and organisational depending on which level the resilience is being considered. Team resilience as an emergent state is placed between other emergent states, such as cohesion, and the various outcomes such as psychological health and maintenance of performance. Although the model proposed by Bowers et al. (2017) enhances our

understanding of the emergence of team resilience, it has faced criticism for its lacking of information regarding the specific processes of emergence. For instance, the relative importance of each input factor remains unknown, as does the nature of the relationships among the proposed factors and their underlying rationales (Gucciardi et al., 2018). Furthermore, while Bowers et al. (2017) define team resilience as an emergent state, throughout their manuscript they also refer to it as a “complex process comprised of processes whereby team members use their individual and collective resources to protect the group from stressors and positively respond when faced with adversity” (p.10). Thus although Bowers et al. (2017) made advancements in conceptualising team resilience as a second-order emergent state, the lack of consistency and precise details regarding the emergence process are notable shortcomings in their article.

Building on the research of Bowers et al. (2017), Gucciardi et al. (2018) proposed a “recipe for team resilience emergence” (p.732), that draws on multilevel theory (Kozlowski & Klein, 2000). Although Bowers et al. (2017) referred to their model as multi-level, they did not explicitly reference Kozlowski and Klein’s (2000) multilevel theory. Multilevel theory is underpinned by General Systems Theory (GST) which originates in the worldview that “the whole is greater than the sum of its parts” (Kozlowski & Klein, 2000, p.4). According to Kozlowski and Klein (2000), multilevel models aim to bridge micro and macro perspectives, by recognising that micro phenomena are embedded within macro contexts. Macro phenomena often emerge through the interactions and dynamics of lower-level elements. While their study was grounded in organisational setting, they describe the process as bottom-up whereby individual characteristics and dynamic social interactions yield a higher-level property of the group (Kozlowski et al., 2013; Kozlowski & Klein, 2000). For example, interactions among team members can yield team effectiveness (Kozlowski & Klein, 2000), which makes this perspective appealing to team resilience researchers.

So, Gucciardi et al. (2018) suggested that team resilience “originates in the resources of the individuals and emerges as a collective state or outcome through dynamic person-person and person-situation interactions that are triggered by adverse events” (p.732). These inputs comprise of individual resources such as knowledge, skills, abilities, and other characteristics, as well as leadership, norms, and mental models. The processes involved in the emergence of team resilience include planning, reflection, and coordination in behavioural, cognitive, and affective domains. Gucciardi et al. (2018) proposed that the emergence process of team resilience can result in either a team resilience outcome as indicated by the team’s trajectory, or a team resilience state, characterised by a shared belief. Although the model was intended to address the gaps in Bowers et al. (2017) study regarding the *how* and *why* of team resilience emergence, their model only includes the most salient factors to team resilience emergence and does not consider other potential factors. Despite this limitation, more recently, Chapman et al. (2021) provided empirical support for Gucciardi et al.’s (2018) multilevel model of team resilience emergence within a sample of military personnel.

Similarly to Bowers et al. (2017), Hartwig et al. (2020) organised their proposed team resilience model using the IMOI framework of team processes (Ilgen et al., 2005) and correspondingly to Gucciardi et al. (2018) applied the fundamentals of multilevel theory proposed by Kozlowski and Klein (2000) to explore team resilience as an emergent state. Hartwig et al. (2020) stated that multilevel theory posits that higher-level phenomena such as team resilience, arise from interactions among individuals within the team. Therefore, Hartwig et al. (2020) suggested that “resilience emerges over time as a function of team member interaction” (p.15). The components for their team resilience model were identified through a comprehensive systematic review into workplace resilience. The authors inclusion criteria included studies that specifically examined psychological resilience in the work context, provided a definition of team resilience, used employee samples, and were published in

English. As a result, 35 studies were included in their analysis, consisting of 15 quantitative, nine qualitative and 11 conceptual and/or review papers. In the model, the input factors encompass the elements that enable a team to exhibit resilience in the face of adversity. These factors include individual-level factors (e.g., communication skills, expertise, resilience, and team orientation), team-level factors (e.g., team members' relationships and team culture), and contextual factors (e.g., transformational leadership). The mediating factors are organised into two categories, team resilient behaviours (i.e., processes including for example communication and coordination) and team states (e.g., cohesion and collective efficacy). The outcomes of team resilience emergence are represented by resilience team outcomes (i.e., performance, health, team functioning) and the team's emergent resilience state. Hartwig et al. (2020) stated that their conceptualisation of team resilience aligns with the conceptual framework proposed by Gucciardi et al. (2018). However, while Hartwig et al. (2020) focused on workplace resilience, including contextual factors in their framework, Gucciardi et al. (2018) explicitly excluded such inputs. Furthermore, both authors conceptualise team resilience as an emergent state. Though, Hartwig et al. (2020) argues that other conceptualisations, such as process and capacity, capture different aspects of the *same construct*.

Transitioning from occupational contexts beyond sports, the most widely adopted definition of team resilience in sport psychology, is that of Morgan et al. (2013, p.552) who defined the construct as “a dynamic psychosocial process which protects a group of individuals from the potential negative effect of the stressors they collectively encounter. It comprises of processes whereby team members use their individual and combined resources to positively adapt when experiencing adversity”. Marks et al. (2001) define processes as “members' interdependent acts that convert inputs to outcomes through cognitive, verbal, and behavioural activities directed toward organising taskwork to achieve collective goals” (p.357). One of the benefits of conceptualising resilience as a process is that through dynamic interactions it can

be developed over time (Egeland et al., 1993). This has been demonstrated in the sporting context through a narrative analysis conducted by Morgan et al. (2015). They proposed that resilience might be developed during different phases of the team's development. Additionally, as a process it enables researchers to propose hypotheses about the conditions and behaviours that contribute to resilience (Bowers et al., 2017).

While Maynard and Kennedy (2016) initially proposed that resilience might be best conceptualised as an emergent state, contemporary researchers who operate outside the realm of competitive sports now define and conceptualise team resilience in the same way (Bowers et al., 2017; Chapman et al., 2022; Gucciardi et al., 2018; Hartwig et al., 2020; Tannenbaum et al., 2022). However, within sport the process conceptualisations are still favoured (Gorgulu et al., 2018; Kegelaers et al., 2021; E. King et al., 2023; López-Gajardo et al., 2023; Tassi et al., 2023). In an effort to reconcile these divergent conceptualisations, Hartwig et al. (2020) argued that “all the various conceptualizations may capture aspects of the team resilience construct” (p. 13). Specifically, a team resilience state cannot exist without observable team processes that are fostered by contextual factors (Hartwig et al., 2020). In conclusion, these findings underscore the importance of considering the specific context in which researchers examine team resilience. Furthermore, team resilience may be identified as a dynamic, complex and multi-level construct, with both individual and team-level resources playing critical roles in its development.

### **1.5 Adversity and Stressors as a Prerequisite of Individual and Team Resilience**

It is apparent from the various definitions of individual and team resilience that a team cannot demonstrate its resilience without experiencing adversity. Adversity has generally been associated with negative life circumstances (Luthar & Cicchetti, 2000), like hardship, or suffering arising from trauma and difficulties (D. Jackson et al., 2007). However, Fletcher and Sarkar (2013) recommended placing equal importance on positive life events when

conceptualising resilience. To illustrate, winning an important tournament may not be considered adversity; however, it can significantly impact a team's attitude leading up to their next major competition. Therefore, it is imperative to not only understand negative events that may pose challenges to individuals and teams, but also to consider positive events as they can equally disrupt functioning. Consequently, Sarkar and Fletcher (2014) advocated for the use of a more neutral term, 'stressor', which they defined as "the environmental demands (i.e., stimuli) encountered by an individual" (Fletcher et al., 2006, p.359). In their review and syntheses of previous research on stressors experienced by athletes, they identified several main categories and subcategories. These include competitive stressors (preparation, injuries, pressure, underperforming, expectations, self-presentation, and rivalry), organisational stressors (leadership and personal issues, cultural and team issues, logistical and environmental issues, and performance and personal issues), and personal stressors (work-life interface, family issues, and the death of a significant other). In summary, Sarkar and Fletcher (2014) suggested that when examining resilience, it is equally important to assess both daily life hassles and major life events. Although their study primarily examined individual resilience, many of the stressors they identified can be applicable to sports teams. This is important, as Chapman et al. (2021) argued that any research exploring team resilience should establish and clearly communicate the specific stressors and adversities being studied (i.e., "resilience to what") (p.5).

Adversity has been characterised as either acute or chronic in nature. In a team setting, chronic challenges are long-lasting and can exert a significant toll on the team's overall functioning (Alliger et al., 2015). For example, ongoing personality conflicts or ambiguous team roles can undermine team cohesion and performance. Moreover, they can lead to the normalisation of subpar performance, with lower standards gradually being accepted as the norm. On the other hand, acute challenges are short-lived, unexpected, or rapid events, such as

a sudden depletion of resources (Alliger et al., 2015). In the sporting world, a team's failure to effectively overcome adversity might result in prolonged performance slumps or diminished prosocial behaviour (Morgan et al., 2019). In addition, adversity can cause team members to become self-focused (i.e., focused on me) by losing their sense of team (i.e., us). It can also lead to breakdowns in communication among team members, with lower-ranking members becoming hesitant to share their observations and/or suggestions (Alliger et al., 2015).

More recently, E. King et al. (2023) examined the sources of adversity in a real-life observation of an elite sailing team during a multi-day yacht race and distinguished between external and internal forms. External adversity refers to environmental events that occur outside of the team's control such as weather conditions. Whereas internal adversity originates from day-to-day processes within the team such as social loafing. E. King et al.'s (2023) observations revealed that experiencing high levels of external adversity does not necessarily lead to internal adversity. In fact, teams facing significant external adversity may exhibit improved focus on interdependent tasks and perform more cohesively. However, when unexpected and acute external adversity arises, it can result in heightened internal team adversity. In such cases, the team must address both forms of adversity simultaneously in order to restore normal levels of functioning. E. King et al. (2023) suggested that the quality of relationships with the team, as well as the continuity in the team members experience of the adversity play key roles in shaping their response to adversity.

It is pertinent to briefly mention the role of the environment and the individuals' perception of encountered stressors as they can potentially influence the outcome of a situation. In order to gain a deeper comprehension of this process, the meta-model of stress, emotions, and perception (Fletcher et al., 2006; Fletcher & Fletcher, 2005; Fletcher & Scott, 2010) could be useful. According to this model, individuals' perception, appraisal, and coping mechanisms in response to stressors arising from their environment determine either a positive or negative



outcome, as well as their emotional states and subsequent consequences (Fletcher & Sarkar, 2013). Fletcher and Sarkar (2012) found that the elite athletes shape their appraisal of challenges and meta-cognitions in order to shield themselves from the potential adverse effects of stressors. Furthermore, they rely on various protective factors such as positive personality traits, motivation, confidence, focus, and perceived social support. A qualitative 3-months long study conducted by Chapman et al. (2021) with 32 military personnel indicated that individuals become aware of adversity through physiological and/or behavioural manifestations that are influenced by the nature of the adversity or the accompanying situation. For example, team members may notice physiological indicators such as increased heart rate, when faced with adversities experienced as a team. Conversely, individuals may observe changes in the typical behavioural responses of their teammates. Thus, it is essential to distinguish between internal indicators such as physiological changes, and external indicators such as observable behavioural shifts, which team members must recognise in order to effectively manage adversity. Within a team context, team members draw on their individual resources to effectively manage stressors (Gucciardi et al., 2018; Hartwig et al., 2020; Morgan et al., 2013). Considering team resilience as a multi-level construct, any efforts to support a team with effectively managing adversity might start by understanding the type of adverse event experienced (e.g., chronic vs acute, internal vs external) and the individual and team level resources that are available.

## **1.6 Empirical Insights into Team Resilience in Sport Psychology**

In the first empirical study of team resilience in sport psychology, Morgan et al., (2013) aimed to define team resilience in elite sport and identify the resilient characteristics of elite sports teams. They employed focus groups with a sample of elite level athletes including female and male athletes from various sports, such as rowing, field hockey, soccer, handball, and futsal. The researchers identified that resilient elite sport teams have 4 characteristics: *group*

*structure* (i.e., conventions that shape group norms and values), *mastery approaches* (i.e., shared attitudes and behaviours that promote an emphasis on team improvement), *social capital* (i.e., the existence of high quality interactions and caring relationships within the team), and *collective efficacy* (i.e., the team's shared beliefs in its ability to perform a task). Though they had a commendable sample of elite athletes, including Olympic medallists, world champions, international, and professional athletes, the study would have potentially benefitted from the inclusion of focus groups that included samples of coaches or other support staff members. As the first empirical study of team resilience in sport psychology, this would have allowed for a complete understanding of the construct in this context.

To extend their understanding of team resilience and to provide an insight into the psychosocial mechanisms that underpins how a resilient team functions, Morgan et al. (2015) conducted another study, this time using narrative analysis of autobiographies of eight members of the 2003 England Rugby Union World Cup winning team. They identified five psychosocial processes: *transformational leadership* (e.g., inspiring team members' commitment to their shared vision despite setbacks), *shared leadership* (e.g., a wide distribution of team member responsibilities), *team learning* (e.g., sharing knowledge of setbacks), *social identity* (e.g., developing a distinctive team identity), and *positive emotions* (e.g., promoting humour despite setbacks) that underpinned team resilience. By conducting a narrative inquiry, the researchers were able to understand and explain the underpinning psychosocial processes behind the resilient characteristics that they identified in their 2013 study. However, Morgan et al.'s (2015) narrative inquiry and the data derived from it relied on individual's recall of past experiences. Thus, it is possible that individuals' recollections of the 2003 England Rugby Union World Cup have evolved over time, which may compromise the reliability of the data.

Following on from their 2013 and 2015 study, Morgan et al. (2019) explored the psychosocial enablers and cues that promote the development of team resilience in high-performance sports. They conducted an 11 month long ethnographic study on an English semi-professional rugby union team. Morgan et al. (2019) found five psychosocial enablers and strategies that stimulated the development of team resilience: a) *inspiring, motivating, and challenging team members to achieve performance excellence* (e.g., team goals and team protocols), b) *developing a team-regulatory system based on ownership and responsibility* (e.g., honest feedback, roles), c) *cultivating a team identity and a togetherness based on a selfless culture* (e.g., belonging, team kit), d) *exposing the team to challenging and unexpected/difficult situations* (e.g., shared understanding, pressurised scenarios), and e) *promoting enjoyment and keeping a positive outlook during stressors* (e.g., humour, perspective). These findings are prominent as they provide specific examples to the psychosocial processes identified in their previous study. For instance, using pressurised scenarios (Morgan et al., 2019) can improve team learning (Morgan et al., 2015). Their findings further show great importance as they highlight that team resilience is developed through ongoing multiple team-environment interactions (Morgan et al., 2019). In addition, their interviews included both players and coaches, thus adding to the breadth of knowledge around team resilience in competitive sports from various perspectives which their previous studies lacked.

Fransen et al. (2020) and Yang et al. (2020) were the first researchers to quantitatively measure team resilience and its related constructs on large samples of athletes, yielding promising findings. Yang et al. (2020) found a significant correlation between team resilience and the basic psychological needs (autonomy, competence, and relatedness) within a sample of 659 Chinese athletes that included both female and male athletes with ages ranging from 16 to 34. These athletes participated at various competitive levels ranging from national to

university level, and competed in sports such as football, volleyball, rugby, water polo, basketball and handball. However, the sample also included participants from individual sports like archery and tennis which differ significantly from the interdependent nature of team sports.

Fransen et al. (2020) quantitatively demonstrated some of Morgan et al.'s (2019) qualitative findings using a sample of 30 handball teams. The sample encompassed both female and male athletes competing either at national or at regional level, with ages ranging from 15 to 48 years old. Firstly, they found that high quality identity leadership whether it emanates from the coach, captain or informally from teammates increases team identity. Interestingly, Fransen et al.'s (2020) data analysis revealed that, identity leadership from informal leaders had the strongest association with teammates' team identification. Additionally, a stronger team identity was found to be linked with higher levels of teamwork, team resilience, and satisfaction with team performance. Moreover, the evidence presented by Fransen et al. (2020) suggests that improved team resilience, better team functioning, and a greater satisfaction with performance can be achieved by cultivating a psychologically safe environment.

Following Yang et al. (2020) and Fransen et al. (2020), López-Gajardo, García-Calvo, González-Ponce, Díaz-García, et al. (2022) conducted two studies with the objective of quantitatively measuring team resilience and its related constructs on large samples of athletes (394 and 434 players). This sample included male and female athletes, although the majority were male in both studies, covering an age range of 14 to 42 years. The athletes were recruited from various team sports such as football, basketball, handball, and volleyball, and competed at either amateur or semi-professional level. Their findings also supported the findings of Morgan et al. (2013), indicating a positive relationship between collective efficacy, team cohesion, and team resilience. The researchers suggested that group cohesion plays a crucial role in triggering team resilience, implying that a more united team, both on and off the field, has a greater ability to overcome adversity (López-Gajardo, García-Calvo,

González-Ponce, Díaz-García, et al., 2022). In another study, López-Gajardo, García-Calvo, González-Ponce, Cantú-Berrueto, et al. (2022) discovered a positive association between higher levels of team commitment and perceived levels of team resilience. Interestingly, team commitment emerges as a lower order theme within Morgan et al. (2013) collective efficacy and group cohesion. Therefore, teams that are made of individuals who are highly committed to their teams tend to be more cohesive, demonstrate greater confidence in their ability to overcome setbacks and therefore display greater levels of team resilience. Lastly, the study revealed that teams with lower levels of intra-group conflict perceived higher levels of team resilience (López-Gajardo, García-Calvo, González-Ponce, Cantú-Berrueto, et al., 2022). These findings not only support the earlier qualitative findings of Morgan et al. (2013), but also provide important insights for the development of team resilience in sport teams.

More recently, Van Puyenbroeck et al. (2024) explored whether team resilience predicts the likelihood of winning and investigated whether athletes' perceptions of need-supportive versus controlling coaching behaviours predict team resilience over time. A three-wave longitudinal study was conducted involving 397 players, 188 basketball and 209 soccer players from 39 distinct teams (20 regional level teams and 19 national level teams). Interestingly the researchers did not report information regarding the participants' gender. The participants completed questionnaires at the start, middle, and end of the season with an average of 51 days ( $SD = 12$  days) between the time points. Van Puyenbroeck et al. (2024) found that perceptions of need-supportive coaching behaviours were linked to increased team resilience over time, whereas perceptions of psychologically controlling behaviours were associated with reduced team resilience in subsequent time points. Van Puyenbroeck et al. (2024) supported the correlation that Yang et al. (2020) found between the basic psychological needs and team resilience. In addition, Van Puyenbroeck et al. (2024) stated that team resilience is a clear predictor of winning. However, team performance such as

winning is subject to a range of uncontrollable factors (Ashdown et al., 2024), therefore taking a snapshot of team performance should be done with caution.

Taking these findings into consideration, sport teams seeking to develop their resilience are presented with multiple options that can be implemented according to their specific needs. For example, practitioners could prioritise the reduction of intra-group conflict and increase individuals' commitment to the team to bolster team resilience (López-Gajardo, García-Calvo, González-Ponce, Cantú-Berrueto, et al., 2022). Furthermore, coaches could give precedence to fostering cohesion within their teams, both on and off the field, in order to effectively navigate and overcome challenges (López-Gajardo, García-Calvo, González-Ponce, Díaz-García, et al., 2022). Additionally, the coaches may focus on the development of a psychologically safe environment and the demonstration of high-quality identity leadership as they may facilitate the cultivation of team resilience in sports (Fransen et al., 2020). Lastly, coaches demonstrating need-supportive coaching behaviours can also foster team resilience with their respective sport teams (Van Puyenbroeck et al., 2024).

### **1.7 Examining Constructs Related to Team Resilience**

To gain a deeper understanding of the group dynamics that either facilitate or hinder team resilience, this section of the thesis examines several key constructs. Teamwork is explored for its potential to enhance resilience by fostering cooperation and problem-solving among team members. Although teamwork and team resilience share similarities, they are conceptually distinct. Likewise, collective thriving is discussed in relation to team resilience, as the presence of resilience within a team can foster an environment conducive to thriving. Collective collapse is also considered, as it shares several antecedents with team resilience, despite being the opposite in nature. While collective collapse represents a breakdown in team functioning, it can still influence the development or disruption of team resilience. Finally, emotional contagion is examined for its potential impact on team resilience, as the

transfer of positive or negative emotions—whether through individual experiences or shared adversity—can shape a team’s collective ability to recover and adapt in the face of challenges.

### ***1.7.1 Teamwork***

A group of highly skilled individuals will not automatically perform excellently together, as they must work well together in order to achieve their goals. Teamwork is defined as “a collaborative effort by team members to effectively carry out the independent and interdependent behaviors that are required to maximize a team’s likelihood of achieving its purposes” (D. McEwan & Beauchamp, 2014, p.233). Within the context of sports, teamwork has been consistently positively related to team cohesion, collective efficacy, and satisfaction with team performance (D. McEwan, 2020). Fransen et al. (2020) found, that greater team identification was positively associated with greater teamwork, which subsequently contributed to enhanced team resilience. Furthermore, more recent research by López-Gajardo et al. (2023) revealed a bidirectional, reciprocal, and longitudinal relationship between teamwork and team resilience. This implies that when players perceive greater team resilience, they also perceive improved teamwork execution, and vice versa. Thus, effective teamwork appears to be vital for the development of team resilience.

Teamwork can be enhanced by applying D. McEwan and Beauchamp’s (2014) theoretical framework, which consists of five overarching components that encompass 14 behavioural dimensions. Four of these components (preparation, execution, evaluation, and adjustments) focus on regulating team performance, while one aspect (management of team maintenance) involves interpersonal behaviours that function to keep the team together (D. McEwan & Beauchamp, 2014). To address these components, various training strategies have been proposed, including team and individual goal setting, briefings and debriefings, simulation exercises, feedback, and team charters (D. McEwan et al., 2017). In a 10-week

pilot study utilising a nonrandomised controlled intervention design, D. McEwan and Beauchamp (2020) assessed 12 interdependent sports teams. The sample consisted of 187 athletes with an equal distribution of male and female participants from sports such as basketball, hockey, rugby, volleyball, water polo, and soccer. The intervention incorporated strategies targeting teamwork such as team goal setting, briefs and debriefs, simulations, individual goal setting, and team charters. The researchers discovered that the intervention group showed significant improvements in teamwork, while the control group exhibited no noteworthy changes over the 10 weeks. As teamwork and team resilience are closely intertwined, these findings serve as valuable starting points for developing an intervention that focuses on enhancing team resilience.

### ***1.7.2 Collective Thriving***

Researchers increasingly recognised the interconnectedness of well-being and performance, moving away from viewing them as mutually exclusive concepts. One way this connection has been explored is through the construct of *thriving*. Thriving at the individual level is defined as “the joint experience of development and success, which can be realised through effective holistic functioning and observed through the experience of a high level of well-being and a perceived high-level of performance” (D. J. Brown et al., 2017, p.175). Initially, research focused on thriving at the individual level, but scholars suggested that thriving can also take place at the team level, where members *collectively* experience thriving (Spreitzer & Sutcliffe, 2007). In their detailed exploration of thriving in interdependent sports, McGuire et al. (2023) proposed three approaches to conceptualising thriving as a group level construct: common thriving, team thriving, and collective thriving. Common thriving involves individuals independently rating their own thriving, with the scores aggregated to obtain a team score. Team thriving is measured by individuals independently rating their perception of the team’s thriving. Whereas collective thriving is assessed when



individuals provide a rating of their team's thriving from their integrated perspective as team members (i.e., "we as a team...").

At the individual level, resilience was found to enable thriving (Sarkar & Fletcher, 2014), and it was identified as a predictor of thriving (D. J. Brown et al., 2018). Therefore, it is possible that at the team level, team resilience may also enable and/or predict thriving as a team (McGuire et al., 2023). Although it is currently unknown whether team resilience indeed enables/predicts team level-thriving, Spreitzer and Sutcliffe (2007) discovered a positive association between collective thriving and team resilience, providing a starting point for further exploration of this relationship.

Drawing upon existing literature on organisations, similarly to the processes that a resilient team might engage in, Jenkins (2010) found that high quality relationships, a supportive yet challenging environment as well as opportunities for learning all contributed towards a thriving team. In a similar vein, Spreitzer and Sutcliffe (2007) proposed that thriving originates from the cognitions, affect, and behaviours of individuals, through the mechanism of emotional contagion, can spread among group members (the process of emotional contagion will be discussed in section 1.7.4). Therefore, both collective thriving and emotional contagion should be taken into account when considering team resilience.

### ***1.7.3 Team Collapse***

Teams sometimes experience a phenomenon known as team collapse, wherein their performance suddenly deteriorates, typically when they are on the verge of victory (Apitzsch, 2019; Wergin et al., 2018). Wergin et al. (2018) defined collective team collapse as "a sudden, collective, and extreme underperformance of a team within a competition, which is triggered by a critical situation that interferes with the team's interplay, a loss of control of the game, and ultimately the inability of the team to regain their previous level within the game" (p. 11). Apitzsch (2019) found, that collective team collapse is more prevalent, than previously

believed. Through a survey of 146 male players and 15 coaches from various sports such as floorball, handball, and ice hockey, the researcher revealed that 70.8% of participants reported experiencing at least one collective collapse per season. Remarkably, the majority of these collapses (58.0%) occurred during away games. Despite the authors acknowledgement that their sample consisted of elite-level athletes and coaches, the specific criteria defining this elite status were not delineated.

Upon reviewing the literature, it becomes apparent that collective collapse can be seen as a description of the opposition to a *resilient team*. However, Wergin et al. (2018) highlighted, that team collapse can also be a prerequisite for team resilience. In their qualitative investigation of this construct, Wergin et al. (2018) identified several antecedents (such as lack of attentional focus, increased pressure, overconfidence, age/experience, physical exhaustion, and poor preparation), critical events (including unforced error accumulation, collapse of key players, scoring by opponents, and referee decisions), and outcomes maintaining collective team collapse. These outcomes encompass affective responses (such as negative emotional contagion, anxiety, and anger), cognitive factors (such as pressure, insecurity, lack of accountability, and despair) and behavioural outcomes (including decreased performance contagion, cautious play, hectic rush, limited communication, and blame shifting). Interestingly, many of the factors mentioned above also play a crucial role in bolstering team resilience. For instance, working communication channels during stressors are key in managing such situations (Morgan et al., 2019). Additionally, many of the strategies proposed by Wergin et al. (2018, 2019) to prevent team collapse are similar to those recommended for building team resilience, such as pressure training, fostering a culture of no blame, and cultivating positive emotions. To conclude, Wergin et al. (2019) suggest that “team resilience may constitute a protective factor against collective team collapse” (p. 13).

Intriguingly, Schei et al. (2022) conducted a qualitative exploration into a ‘real-life’ collective collapse of a football team. However, rather than conducting interviews with the team experiencing the collapse, the researchers interviewed the opposing team to gather their perspectives and insights on what might have led to the collapse of the other team. Although the study presents some noteworthy findings, akin to the research conducted by Wergin et al. (2019), it may be possible that the authors’ study would have been more aptly suited for an exploration of team resilience, considering the success achieved by the team they interviewed.

#### ***1.7.4 Emotional Contagion***

The sporting arena is inherently charged with emotions, which can influence team level constructs and team performance. According to Schoenewolf (1990), emotional contagion can be defined as “a process in which a person or group influences the emotions or behaviour of another person or group through the conscious or unconscious induction of emotion states and behavioral attitudes” (p. 50). This phenomenon is evident when individuals imitate the facial expressions and body postures of those around them. Early investigations into this phenomenon by Barsade (2002) revealed that the transfer of positive emotions promotes increased co-operation and decreased conflict among groups of adults, highlighting its significance. However, the transfer of negative emotions can derail a team’s performance entirely (Apitzsch, 2019).

In support of the construct within the context of sport and with a sample of cricket players, Totterdell (2000) found that mood within the team transferred during a competitive match, and positive moods led to improved performance. In the realm of football, Moll et al. (2010) analysed penalty shoot-outs from World Cups between 1974 and 2006, as well as the European Championships between 1972 and 2008. The final sample included 234 penalty kicks, which were then coded for players’ post-shot behaviours (e.g., large smiles, chest expanded, two hands made into fists). The researcher discovered that displaying celebratory

behaviours following a successful penalty kick can lead to winning. Consequently, when a player expresses an emotional state, it elicits similar emotions in the teammates observing these emotions (Moll et al., 2010). Moreover, such celebratory expressions can have a negative impact on the opposing team.

Cotterill et al. (2020) demonstrated gender differences in emotional contagion related to athlete leadership. They examined 295 university athletes, with 200 male participants recruited from sports such as rugby, football, and hockey and 95 female participants recruited from sports such as rugby, netball, and hockey. First, participants were required to categorise the individuals they perceived as the best leaders in each of the four key leadership roles (task, motivational, social, external) as identified by Fransen et al. (2014). Following this procedure, participants completed the 7-item emotional contagion subscale of the Measure of Empathetic Tendency (MET, Mehrabian & Epstein, 1972) for each of the four assigned athlete leaders in their team. The results demonstrated that, while mean values for emotional contagion within the athlete population were relatively high for all four athlete leadership roles (task, motivational, external, and social), female athletes were more susceptible to emotional influence compared to their male counterparts, particularly in relation to social, motivational, and external leaders. This finding holds particular significance for practitioners involved in the field of women's sport.

In a team resilience study conducted by Chapman et al. (2021) with military personnel, it was observed that certain adversities were not directly experienced by all team members. However, these adversities transferred onto other team members through a contagion effect (Barsade, 2002). Whilst the findings of Chapman et al. (2021) were unintentional, Hartmann et al. (2021) intentionally investigated the role of emotional culture and emotional contagion in relation to team resilience in an organisational context. Although they did not utilise a scientifically validated team level measure of the construct, they adapted an existing scale that

measures individual resilience. They noted that fostering an emotional culture of joy, which can be achieved through emotional contagion, may enhance team resilience (Hartmann et al., 2021). To conclude, it appears that the role of emotional contagion may be particularly important in either fostering or hindering resilience within sports teams.

### **1.8 Measuring Individual and Team Resilience**

Measuring resilience is essential for researchers to identify its key determinants, compare how resilience manifests in different contexts, develop and improve interventions, track changes over time, and ultimately enhance the ability of individuals and teams to thrive despite adversity. It bridges theory and practice, providing evidence-based insights into how to cultivate and sustain resilience in various settings. Consequently, the measurement of individual and team resilience has been an important focus for researchers in the last decade. Resilience can be measured in various ways, both objectively and subjectively. For instance, through pre- and post-event interviews, using scientifically validated scales, observations, performance trajectories, and even through certain physiological markers. Given that resilience is a dynamic construct, some researchers argue that longitudinal assessments are necessary to adequately capture functioning before and after an adverse event (Gucciardi et al., 2018; Morgan et al., 2019). Indeed, Alliger et al. (2015) emphasised that “many teams can make it through an initial challenge or two, but only resilient teams can sustain performance and morale over time” (p. 177). Additionally, scholars proposed different “end goals” for resilience, such as team viability, performance, and health (Alliger et al., 2015; Bowers et al., 2017). The consideration of team health is particularly intriguing, as team resilience, according to Alliger et al. (2015), is not solely about effectively overcoming challenges, if the process drains their resources and negatively affects the team’s health (Alliger et al., 2015). Nevertheless, the choice of measurement method in resilience research will depend on the specific context and

the researchers' definition of resilience. Although this section will include measures at both the individual and team level, the main focus will be on team level assessments.

### ***1.8.1 Scientifically Validated Scales***

#### **Individual Resilience**

To objectively measure individual resilience, scholars developed and validated a number of different scales (Windle et al., 2011). Connor and Davidson (2003) developed the Connor-Davidson Resilience Scale (CD-RISC) as a clinical measure to assess treatment response and quantify resilience. The original scale consists of 25 items, each rated on a 5-point scale, with higher scores indicating higher resilience. The scale demonstrated sound psychometric properties, including good internal consistency and test-retest reliability. However, after finding inconsistencies of the CD-RISC, Campbell-Sills and Stein (2007) revised the scale and developed the 10-item CD-RISC. The new scale measures a “characteristic that differentiates individuals who are functioning well after adversity from those who are not” (Campbell-Sills & Stein, 2007. p.1026). Therefore, the CD-RISC measures trait-like characteristics rather than viewing resilience as a process.

Viewing resilience as an outcome, Smith et al. (2008) developed the Brief Resilience Scale (BRS) to assess individuals' ability to bounce back or recover from stress. The BRS contains six items, three of which are negatively worded, and scored on a 5-point Likert scale ranging from strongly disagree to strongly agree. All answers are added up with negatively worded items reverse scored, resulting in a total score ranging from 6 (low resilience) to 30 (high resilience). The scale demonstrated good internal consistency and test-retest reliability.

Although there are other measures of individual resilience outside the context of sport, discussing all of them is beyond the scope of this literature review (Windle et al., 2011). When considering resilience in the context of sport, there is currently no published sport specific self-report measure of resilience. This is noteworthy given the attention the

construct received in the past decade, with researchers stating a need for the development of such a measure (Gupta & McCarthy, 2022; Sarkar & Fletcher, 2014). However, both the BRS (Edwards et al., 2019; Kuchar et al., 2023; Martin et al., 2021) and the 10-item CD-RISC (Gonzalez, Moore, et al., 2016; Gucciardi et al., 2011) have been used and validated with samples of athletes. Nonetheless, Gucciardi et al. (2011) pointed out that researchers and practitioners may miss important context specific data by utilising resilience assessment tools designed for different populations. Therefore, the field would benefit from the development of a sport specific measure.

### **Team Resilience**

As a team comprises of individuals, one could argue that measuring the personal resilience of each individual would result in obtaining the average resilience of the team. However, team resilience is a significantly more intricate construct and a group of resilient individuals does not necessary make for a resilience team (Alliger et al., 2015). Consequently, it is imperative to employ specific team level measures in order to assess resilience at the team level.

As a team level measure of resilience, multiple scales have been developed and validated. In the Information Technology (IT) field, Sharma and Sharma (2016) developed the first team resilience scale with the objective of assessing the resilience capacity of team functioning. They adapted existing items from literature to form the team resilience scale which consists of 50 items. Specifically, these items represented four primary dimensions proposed by Morgan et al. (2013) - mastery approach, social capital, group structure and collective efficacy - and 10 subdimensions. The subdimension include task design, team composition, group norms, team learning orientation, team flexibility, network ties, shared language, trust, perceived efficacy of team members, and perceived efficacy for collective team action. The items are rated using a five-point Likert scale, ranging from strongly disagree to strongly agree.

The scale was tested on a sample of 152 IT personnel and demonstrated a reliability index of 0.835. According to the authors, “the results demonstrated that team resilience is a quantifiable construct, assessment of which is necessary for improving the team performance” (Sharma & Sharma, 2016, p. 50). The authors suggest using this instrument within organisations to evaluate the effectiveness of resilience building interventions (Sharma & Sharma, 2016). Since its development, Sharma and Sharma (2020) utilised the scale to explore the relationship between team resilience and organisational effectiveness, finding a significant correlation between the two.

In the military context, Tannenbaum et al. (2022) developed and validated a Team Resilience Scale (TRS). The tool was developed to assess the teams’ capacity to handle and bounce back from challenges. The scale consists of 12 items that are categorised into three dimensions: affective states (relating to the psychological states of the team, such as feelings, attitudes, and emotions), cognitive states (relating to the team members’ thoughts and beliefs), and physical states (referring to the somatic condition of team members). The development of the TRS was based on the Conservation of Resources theory (COR; Halbesleben et al., 2014; Hobfoll, 1989; Hobfoll et al., 2018). Each item is rated on a 10-point scale, where team members indicate the current level of resources available for each item (10 = Low – Totally spent, nothing in reserve; 50 = Medium – Somewhat depleted, but something in reserve; 100 = High – Fully ready with plenty in reserve). Tannenbaum et al. (2022) demonstrated the scale’s good validity and reliability, supporting its use as a single composite measure of team resilience, or as a three-dimensional measure.

Decroos et al. (2017) developed the only existing validated measure of team resilience in the context of performance sport. The Characteristics of Resilience in Sports Teams Inventory (CREST, Decroos et al., 2017) was developed systematically through four consecutive studies as a referent-consensus model underpinned by the qualitative findings of



Morgan et al. (2013, 2015). The CREST is a state measurement tool, comprising of 20 items encompassing two factors: demonstrating resilient characteristics and vulnerabilities shown under pressure. The scale was developed to provide a quantitative measure to be used in research as well as for coaches to base conversations and reflections around. It is further suggested to be used to monitor the current state of the team as well as the development of resilient characteristics (Decroos et al., 2017). A few studies to date used the CREST in empirical research (Fransen, McEwan, et al., 2020; Kegelaers, Wylleman, et al., 2021; Van Puyenbroeck et al., 2024) demonstrating good reliability and validity of the measure.

For instance, Kegelaers et al. (2021) conducted a study in which they implemented a team resilience intervention with 18 elite level female basketball players. The researchers evaluated the intervention using the CREST assessment tool alongside their qualitative measures. They found a statistically significant decrease in the team vulnerabilities subscale, but no significant changes were observed in the team resilience characteristics subscale. However, the authors of the CREST noted that the initial step in cultivating team resilience may involve reducing team vulnerabilities (Decroos et al., 2017). In a separate study, Fransen et al. (2020) surveyed 289 handball players to explore the relationship between psychological safety, identity leadership, teamwork, team resilience, performance, and well-being. The findings revealed the following: a) informal leadership, compared to formal leaders such as coaches, had the greatest overall impact on team resilience; b) team identification was positively associated with increased teamwork, which subsequently positively associated with enhanced team resilience, leading to greater satisfaction with team performance; c) a psychologically safe environment contributed to enhanced team resilience. Although Kegelaers et al. (2021) and Fransen et al. (2020) employed different research designs, neither study reported any issues with the CREST assessment tool.

### ***1.8.2 Physiological Markers***

Physiological markers have increasingly been used to examine resilience, offering a biological perspective on how individuals respond to stress. One key system involved in this response is the hypothalamic-pituitary-adrenal (HPA) axis, its activation triggers the release of hormones such as cortisol (Ehrlenspiel & Strahler, 2012). This allows researchers to assess the impact of stressors not only through self-reported measures but also by directly measuring biological indicators, such as cortisol levels, to gain deeper insights into resilience processes.

Meggs et al. (2016) were the first to investigate the relationship between cortisol concentration, self-reported trait resilience and swimming performance. The researchers utilised The Academic Resilience Scale (Martin & Marsh, 2006) to assess resilience, collected cortisol data through saliva swabs, and evaluated performance by comparing the personal best time for the 100 meters swim with the time recorded during the measurement, thereby obtaining a relative performance index. The study revealed that athletes who reported greater levels of resilience also exhibited a reduced cortisol response to competition and achieved superior performance. Interestingly, Meggs et al. (2016) also found that athletes with elevated cortisol levels and high self-reported resilience performed worse compared to individuals with lower levels of self-reported resilience. Whilst the authors indicated that emotions may explain these findings, additional research is needed to confirm their hypothesis.

Gucciardi et al. (2021) also examined changes in cortisol levels as an indicator of accumulated stress, with the difference of using hair samples as a measurement tool. They examined individuals from the Australian Army who had successfully completed a rigorous 3-week Special Forces Selection Course. In addition to assessing temporal changes (described in section 1.8.4 of this thesis), the researchers collected hair strands from the posterior vertex region to measure hair cortisol concentration (HCC). This region was chosen due to its minimal variation in average hair growth (Cooper et al., 2012). HCC measurements were taken before

the start of the selection course and at the beginning of the recovery week. The study findings by Gucciardi et al. (2021) revealed that biological stress had an impact on the total duration of sleep during the first night following the selection course. The authors emphasised the robustness of HCC as a measurement of cortisol, stating that it is not easily influenced by acute contextual factors (e.g., events) or psychological factors (e.g., mood), compared to salivary cortisol.

Taking these findings into consideration, the assessment of physiological responses to stress has the potential to significantly enhance our understanding of resilience. It is important to acknowledge, however, that conducting such investigations may not be feasible for coaches, sport psychology practitioners, and even some researchers. Nonetheless, cortisol might predict, indicate, or mediate resilience in different contexts.

### ***1.8.3 Conducting Observations in Team Resilience Research***

With a process view of team resilience, E. King et al. (2023) conducted a study on an elite yacht crew during a 72-hour yacht race. The researchers collected data by capturing video observations of the team and their interactions. Notably, video observation provides a means to examine adversities, relationships, and actions over time (Langley, 1999). To facilitate data collection, two cameras were positioned on the yacht: one on the deck and one in the cabin where team members conducted their planning. Prior to the race, semi-structured interviews were conducted to explore how team members prepared for potential adversities. Post-race interviews were also conducted to capture their responses to adversities that they encountered during the race. E. King et al. (2023) found four distinct themes that depicted how the elite yacht crew experienced adversities, which were subsequently mapped onto a matrix. The first theme, “Smooth Sailing” was described by low levels of team adversity and low levels of environmental adversity. The second theme, “Calm in the Chaos” denoted low team adversity but high environmental adversity. The third theme, “Chaos in the Calm”

depicted high team adversity but low environmental adversity. Lastly, the fourth theme, “Perfect Storm” was characterised high levels of both team adversity and environmental adversity. This innovative approach to measuring team resilience provided valuable insights into the team’s functioning before, during, and after facing internal and external adversities. However, despite the novel approach, E. King et al. (2023) only observed one elite yacht crew, during a single 72-hour race. Conducting assessments on multiple crews or multiple races would have enabled the emergence of richer data pertaining to team resilience.

#### ***1.8.4 Understanding Trajectories to Capture the Dynamic Nature of Resilience***

The definition of team resilience proposed by Gucciardi et al. (2018) - “an emergent outcome [that] characterizes the trajectory of a team’s functioning, following adversity exposure, as one that is largely unaffected or returns to normal levels after some degree of deterioration in functioning” (p. 7) - suggests that a team’s performance over a specific period of time, during which it experiences adversity can indicate its level of resilience. According to Hartwig et al. (2020), this can be viewed as a continuum, with different teams exhibiting different resilience trajectories. For instance, the more strongly a team is affected by adversity, or the more time they need to get back to their normal level of functioning following a setback the less resilient they may be (Hartwig et al., 2020). Additionally, Hartwig et al. (2020) assert that in order to comprehensively capture the dynamic nature of team resilience, it is necessary to assess not only the state of team resilience at a single point in time, but also its trajectory over multiple time points to track changes in shared team perceptions and interactions. Four possible trajectories were proposed that team could follow upon experiencing adversity, they can: a) withstand or resist the impact of adversity with little to no effect on their functioning; b) experience significant deterioration but bounce back to normal level of functioning; c) gradually recover their functioning (Chapman et al., 2020; Gucciardi et al., 2018); and d) experience post adversity growth whereby their functioning actually increases following

adversity (Hartwig et al., 2020). Therefore, assessing team resilience at a single time point would not provide an accurate representation of how teams navigate and cope with adversity over time.

Gucciardi et al. (2021) conducted a study to evaluate resilience by examining changes in within-person variability over time following a 3-week Special Forces Course. The findings revealed a slight decrease in average sleep duration during the 7-day period following the training indicating a bounce back trajectory of emergent resilience. Furthermore, participants who reported higher levels of adaptability, as assessed by a self-report scale, exhibited the greatest reduction in sleep variability over the 7-day period (Gucciardi et al., 2021). These results suggest that individuals can demonstrate resilience (conceptualised as emergent) after experiencing a significant stressor, as evident from the stabilisation in markers of functioning (Gucciardi et al., 2021).

#### ***1.8.5 Wellbeing of the Individual Within Team Resilience***

Generally, teams are formed with the purpose of achieving a shared goal or a common objective (Sundstrom et al., 1990). Therefore, a team's functioning during, or after adversity can be measured by the extent to which these shared goals and objectives are achieved (Chapman et al., 2020). However, this simplistic perspective has the potential to overlook the negative and harmful effects of adversity on team members.

While team performance may recover after adversity, some team members may take longer to return to normal level of functioning. In team sports, the psychological impact of making mistakes can be greater due to the athlete's concerns of 'letting teammates down' compared to individual sports (Hill & Shaw, 2013). Penalty shoot-outs provide an excellent example of situations where the collective efforts of the team fall on a few individuals who face enormous pressure. An instance of this was seen in the women's football sudden death penalty shootout for the gold medal at the 2020 Tokyo Olympics, where Canada defeated

Sweden. The Swedish captain at the time, Caroline Seger, who holds the record for the most caps among European women's football players and has performed at the Olympics four times, missed her shot as the ball sailed over the crossbar (Lauletta, 2021). In an interview following the tournament, she stated:

*“And in those seconds of your life, it’s as if everything turns to dark. There isn’t much joy left, not for football nor the silver medal that we ended with. It was absolutely, absolutely the toughest moment in my career.”*(FCB SWE, 2021).

The above quote indicates several important considerations, including (1) the necessity to monitor the well-being of individuals following significant adverse events, (2) the importance of contextual information when assessing resilience, and (3) the significance of qualitative data in augmenting researchers' understanding of nuances that quantitative data alone may lack. Such data holds the potential to inform practical applications such as ensuring that support staff within team sports prioritise the availability of adequate individual level support.

### ***1.8.6 Contextual Factors to Consider When Measuring Team Resilience***

There are numerous factors that impact the composition of a team and subsequently influence the interactions within the team, supporting the notion that “no two teams are the same” (Salas et al., 2018, p.595). Teams differ in terms of their size, composition, level of task interdependence, skill differentiation, lifespan, virtuality, and authority differentiation (Hollenbeck et al., 2012). Therefore, it is crucial to take these factors into account when evaluating team resilience.

To illustrate the importance of contextual factors, Chapman et al. (2021) conducted a longitudinal study to explore the emergence of team resilience within a newly formed team.

The researchers observed a military team that participated in two training courses spanning a duration of 4-5 months. This study took place as part of an 18-month training programme. By selecting a team in its early stages, the researchers sought to capture the various processes of emergence that are likely to manifest during this phase. They aimed to gain insights into the time required for emergence processes to occur in newly established teams, as well as to identify the critical inputs and formative processes involved. Through a temporal analysis of their key themes, they demonstrated changes in team members' thoughts and perceptions. For instance, the team members exhibited a shift in their understanding of shared mental models, transitioning from a mere comprehension of task constraints to an understanding of the future needs and actions of other team members, as well as their strengths and weaknesses. While their results may be applicable to certain contexts where the formation of new groups is common, such as group assignments in educational institutions, or the rapid formation of national sports teams, it is important to note that at the club level in sports, it is rare, if not impossible, to see a team form from scratch.

In conclusion, there are varied methods for researchers and/or sport practitioners to assess the resilience of their team. These methods include the use of observations, interviews, physiological markers, scientifically validated scales, and trajectories. Bonanno et al., (2015) suggested that there are four fundamental components that researchers may need to consider when attempting to capture resilience: 1) pre-adversity functioning, 2) the adverse event itself, 3) resilient outcomes post-adversity, and 4) predictors of resilient outcomes. Furthermore, Chapman et al. (2020) suggested, that future research on team resilience should provide greater clarity regarding the adverse event by considering its a) severity (i.e., whether it is a chronic or acute event), b) level of exposure (i.e., individual differences in response to adversity), and c) trajectory of impact (i.e., immediate, or long-term effects). Lastly, as outlined by Hartwig et al.

(2020), it is recommended that researchers avoid measuring team resilience at a single point in time, and instead shift towards employing multiple measures over an extended period of time.

## **Part Two: Developing Resilience**

### **1.9 Interventions in Sport Psychology**

Interventions play a significant role in the field of sport science. Physiotherapists use interventions to prevent or treat injuries, researchers employ them to test theories in controlled environments, and psychologists rely on them to support sport performers. According to D. J. Brown and Fletcher (2017), interventions developed and implemented by psychologists are characterised as “any actions or processes that alter functioning and/or performance through changes in an individual’s thought and behaviour, through social factors, or through a combination of both individual thought and behaviour and social factors, respectively” (p. 78). The type of intervention can be categorised as social, psychological, or psychosocial, depending on the specific context. For instance, goal setting is considered a psychological intervention, but when combined with a social agent like a coach, it becomes a psychosocial intervention.

It is highly probable that, in a team setting, the predominant form of intervention delivered by sport psychologists will be of a psychosocial nature. Therefore, it is not surprising that in the meta-analysis conducted by D. J. Brown and Fletcher (2017), psychosocial interventions were identified as the most effective. The researchers analysed 35 intervention studies, in which a total of 54 interventions were delivered. Out of these interventions, 46 were psychological in nature, 12 were psychosocial in nature, and no purely social interventions were identified. Interestingly, coaches were found to be the most effective providers of psychosocial interventions. This strong effect can be explained by the athletes already having a matured relationship with their coaches (Leach, 2005), thus leading to greater effects.



Consequently, this might be central to designing effective psychosocial interventions in sports (D. J. Brown & Fletcher, 2017). Interestingly, out of the 35 studies, only 8 studies reported a follow-up assessment. Although those 8 studies demonstrated an overall large positive effect on sport performance at least one month after the intervention had finished, not all of them reported an immediate positive effect after the intervention (D. J. Brown & Fletcher, 2017). This finding highlights the significance of follow up assessments to fully evaluate the effectiveness of a sport psychology intervention. While D. J. Brown and Fletcher's (2017) meta-analysis serves as a valuable starting point for designing psychosocial interventions in sport psychology, it is worth noting that the researchers only included interventions that were delivered at the individual level. Thus, transferring their findings to the world of team sports should be done with caution. However important elements can be taken into consideration, such as the effects of the inclusion of the coaches as well as the importance of follow-up assessments.

In the realm of team sports, Martin et al. (2009) conducted a meta-analysis of team building interventions. It encompassed a total of 17 studies and revealed a significant positive effect of team building interventions on various aspects, such as cohesion (both task and social), performance, roles (including clarity, acceptance, and satisfaction), and athlete cognitions (specifically athlete satisfaction and self-confidence). Notably, among the different components of interventions considered, goal setting interventions emerged as the most effective. Furthermore, the meta-analysis also indicated, that the duration of team building interventions directly influenced their effectiveness, with longer intervention yielding greater results. These findings hold important implications for the implementation of longitudinal studies in the field of team sports.

The gender disparity in sports is evident, with a notable difference of 1.5 million more male participants compared to their female counterparts. Moreover, statistics reveal that a mere

18% of qualified coaches and a mere 9% of senior coaches are women (Women In Sport, 2022). Gupta and McCarthy (2024) found that the lack of female coaches could have a direct impact on female athletes' resilience development. The participants in their study suggested that if male coaches are less effective at engaging with female athletes, this may impact the athletes' development, suggesting that more experienced coaches or those who work exclusively with female athletes may be better equipped to foster resilience (Gupta & McCarthy, 2024). In the realm of academia, research has also been reportedly skewed towards men's sports (Delia et al., 2021; Filo et al., 2015). To demonstrate such gender imbalance, Walton et al. (2022) analysed articles from five top journals published in 2010, 2015, and 2020 including data from 258,160 participants across 627 studies. Walton et al. (2022) found that about one in five sport psychology studies featured only male participants, while just 7% focused solely on females. Regarding sport psychology interventions, among the 35 studies analysed by D. J. Brown and Fletcher (2017), only 18 included female athletes, while all 35 included male athletes. Additionally, the results of their meta-analysis indicate that interventions were more effective for samples consisting of predominantly male participants. This implies that a) interventions have mainly been developed, tested, and refined for male athletes, and b) this resulted in interventions that may not be as effective for female athletes. These findings underscore the need for further research in the field, either by including an equal number of participants from each gender or by developing, testing, and refining interventions specifically tailored for female athletes. Indeed, the sports science community must address inequalities that marginalize women to promote inclusive and socially just research (P. C. Jackman et al., 2025).

### **1.10 Frameworks for Developing Psychosocial Interventions in Sport**

While it is commonly understood that interventions have the potential to help athletes and sports teams, the manner in which researchers and practitioners develop these interventions remains a subject of enquiry. For example, based on their philosophical

underpinnings, practitioners might choose to adopt a framework from their own therapeutic approach that they feel most closely aligned with such as cognitive behavioural therapy (CBT), rational emotive behavioural therapy (REBT), or acceptance and commitment therapy (ACT) to guide the consulting process, including the design, delivery, and evaluation of an intervention. However, while applied practitioners possess a well-developed philosophical understanding of their own practice, derived from continuous self-reflection throughout various training routes, researchers are not expected to comply with the same requirements. This highlights the need for a more comprehensive understanding of how researchers can develop and test interventions that are ecologically valid in a high-performance sport setting.

A sport specific framework that researchers may draw upon was developed by Keegan (2016) for the consulting process in sport psychology. This framework encompasses six stages, commencing with the intake where a relationship is established, the expectations and the goals are identified. This is followed by a needs analysis where information is gathered regarding the client's strengths, weaknesses, and aspirations. This data can be acquired through various methods such as interviews, questionnaires, or observations. The next stage involves synthesising the information obtained from the needs analysis into a working model, known as case formulation, which serves as a guide for subsequent decisions. This step is vital in providing a rationale for the selection of specific intervention approaches. Following this, an intervention is chosen based on a careful evaluation of scientific evidence and professional judgement, using the aforementioned working model. Consequently, a detailed intervention plan is developed outlining its structure, support mechanisms, and strategies for monitoring progress. Finally, during the delivery and monitoring stage, the intervention is assessed and adjustments are made, if necessary, to enhance its effectiveness. This framework is underpinned by the psychologists' ethical standard and philosophical assumptions. Overall, Keegan's (2016) framework provides a comprehensive approach to the

consulting process by covering all aspects of the consultation; it offers flexibility to practitioners as they can adapt the framework to suit the context in which they operate in; it highlights the importance of the integration of research and practice; and it promotes a client-centred focus by concentrating on the specific needs of the client. However, limited empirical data exists of its effectiveness in real-world settings such as case studies or anecdotal evidence from applied practitioners. In addition, the implementation of this framework may require substantial resources, such as time, which is often scarce for many sport psychology practitioners working in high-performance team environments.

While frameworks are important to guide the intervention development process, there are many other factors that play a role in ensuring an intervention's effectiveness in the field of sport and exercise psychology. For example, having a coherent professional philosophy (Poczwadowski & Sherman, 2011); a good client-practitioner relationship and working alliance with athletes (Gardner & Moore, 2007; Williams & Andersen, 2012), and with coaches (Speed et al., 2005); focusing on the holistic development and support of athletes (Friesen & Orlick, 2010); and taking the context, setting, and environment into consideration (Fifer et al., 2008). Henriksen et al. (2019) conducted a study examining successful and less successful sport psychology interventions by interviewing 12 internationally recognised expert sport psychology practitioners. Drawing their findings together, Henriksen et al. (2019) suggested that in order to develop and implement successful interventions with senior athletes, sport psychologists should (1) allocate a significant amount of time to conduct a comprehensive assessment of the athletes' requirements, drawing on diverse sources of information, with particular emphasis on interviews and observations; (2) abandon the notion of a standardised curriculum and instead prioritise addressing the specific needs of the athletes or team; (3) if necessary, teach the athletes mental skills; however, adopt a holistic approach that emphasises assisting them in navigating the fundamental existential and

motivational challenges; (4) continuously monitor the athletes' progress over an extended period of time and in various contexts, and maintain regular contact; (5) engage the coach and strive to obtain their support; (6) conduct ongoing evaluations, with a particular emphasis on feedback and observations, in order to maintain a balanced focus on both personal development and athletic performance. Additionally, Henriksen et al. (2019) proposed an empirical framework which may be used for planning sport psychology interventions. This framework includes two overall categories, the content and focus of sport psychology intervention, and the organisation and delivery of sport psychology intervention. The authors suggested that it can be converted into a checklist, with adequate flexibility for researchers and applied practitioners to adapt to their own context. While Henriksen et al.'s (2019) framework acknowledges team settings throughout their research, the framework may still place too much emphasis on individual psychological characteristics and processes, potentially overlooking the interactive nature of team dynamics and environmental influences.

### ***1.10.1 Team Level Frameworks***

Interestingly, there is a lack of guidance at the team level for sport psychologists wishing to develop psychosocial interventions. While the frameworks proposed by Keegan (2016) and Henriksen et al. (2019) may be adapted for use in a dynamic high-performance team setting, certain factors specific to this context may need to be considered to ensure their effectiveness. One of these factors may be the importance of co-production which researchers advocated for in the field of sport, physical activity, and exercise sciences (Buckley et al., 2019; Rütten et al., 2019; Smith et al., 2021). Smith et al. (2023) argued that researchers should appreciate the definitional heterogeneity of co-production rather than trying to find the true definition of co-production. The variation in definition may be due to the various contexts and disciplines in which co-production is employed. While co-produced research

offers many advantages such as the development of more accessible, relevant, and acceptable knowledge, as well as enhanced implementation in practice (Grindell et al., 2022), those seeking to implement it may encounter challenges, such as the difficulty of establishing and maintaining relationships with diverse groups of people (Smith et al., 2023).

An academic framework for intervention development that places co-production as its central component is Intervention Mapping (IM, Bartholomew et al., 1998). According to the authors of the framework, intervention development consists of three main components: needs assessment, programme development, and evaluation (Bartholomew et al., 1998). This process bears striking similarities to the development of intervention for individuals in sport psychology outlined by Keegan (2016). IM comprises of six detailed stages, which represent an iterative and cumulative approach to intervention development, rather than a linear pattern. These steps and processes offer a systematic sequence for applying empirical findings from the literature, integrating theory, and utilising data collected from the target population (Bartholomew et al., 1998).

The first step in the process is to identify and understand the problem. This involves determining and analysing the discrepancy between “what is” and “what should be” (G. D. Gilmore & Campbell, 2005). Several tasks are involved in this step: (a) establishing and working with a planning group, (b) conducting a needs assessment, (c) describing the context of the intervention including the population, and setting, and (d) stating programme goals. According to Bartholomew et al. (2016), an intervention planning group should include stakeholders such as members of the target group and future implementers, as their contributions to the development, implementation, and evaluation of the intervention are valuable. The second step lays the foundation for the intervention by determining who and what will change as a result of the intervention. This is achieved through the following steps: (a) stating expected outcomes for behaviour and environment, (b) specifying performance

objectives for behavioural and environmental outcomes, (c) selecting determinants for behavioural and environmental outcomes, (d) constructing matrices of change objectives, (e) creating a logic model of change. In Step 3, theoretically informed and evidence-based methods are considered to bring about changes based on the determinants, and it involves the following steps: (a) generating programme themes, components, scope, and sequence, (b) choosing theory-and evidence-based change methods, (c) selecting or designing practical applications to deliver change methods. The fourth step includes producing programme components and material that are relevant and appealing to the target population. This is achieved via the following tasks: (a) refining programme structure and organisation, (b) preparing plans for programme materials, (c) drafting messages, materials, and protocols, (d) pre-testing, refining, and producing material. The penultimate step in IM involves developing programme implementation plans, including adoption, implementation, and sustainability. The tasks in this step are: (a) identifying potential programme users (implementers, adopters, and maintainers), (b) stating outcomes and performance objectives for programme use, (c) constructing matrices of change objectives for programme use, and (d) designing implementation interventions. The final step in IM is the development of an evaluation plan to assess whether the objectives were reached. The key tasks in this step include: (a) writing effect and process evaluation questions, (b) developing indicators and measures for assessment, (c) specifying the evaluation design, (d) completing the evaluation plan. Consequently, IM is a comprehensive framework for intervention development within team environments.

IM has multiple strengths that could be highly relevant to the field of sport and exercise psychology. Firstly, by involving relevant stakeholders, including members of a multi-disciplinary team (MDT) and end users such as players, the process of developing interventions adopts a co-design approach. This approach may allow practitioners to gain a more comprehensive understanding of the performance environment they are working with, and it

may also promote increased acceptance and adherence to the intervention. Secondly, the framework places a significant emphasis on the consideration of the environment in which individuals operate in. This is particularly important when examining constructs such as resilience, as resilience is influenced by both environmental and situational factors (Kegelaers & Sarkar, 2021). Lastly, the framework highlights the use of process evaluations in assessing the intervention. Process evaluations could be valuable for researchers and sport psychology practitioners working in high-performance sports to evaluate their intervention (Randall et al., 2019).

Given its highlighted benefits to the world of sport and exercise, only a handful of studies to date used IM as a framework. Studies that applied IM in the field of sport and exercise focused on promoting physical activity (Lloyd et al., 2011), preventing injuries (Collard et al. 2009), addressing mild eating disorders (Sandgren et al., 2023), and developing a sport mental health assessment tool to identify elite athletes at risk for mental health symptoms or disorders (Gouttebauge et al., 2021). Interestingly, Mattie et al. (2020) utilised IM to develop a mental skills training programme for the Canadian Special Operations Forces Command. Their intervention was grounded in the performance psychology literature, borrowing from studies conducted in the field of sport psychology. While their study may act as an exemplar for applying IM to develop effective interventions in a performance context, it is not without limitations. For instance, although Mattie et al. (2020) conducted an extensive pilot investigation to identify any further adaptations that may be required for their programme prior to full implementation, their evaluation framework was incomplete at the time of the pilot study. As a result, they were unable to assess the effectiveness of the intervention. In addition, the intervention is yet to be implemented, therefore conclusions cannot be drawn regarding its effectiveness. Consequently, although the study by Mattie et al. (2020) appears promising, it should be interpreted with caution until a report on the intervention's effectiveness is available.



Indeed, the purpose of IM is to develop an intervention, rather than implement it, so the question arises: *How do we know that the intervention developed is effective?* For example, a meta-analysis of effective interventions would not be able to include the study by Mattie et al. (2020) since it does not provide the actual intervention.

In summary, based on the existing meta-analysis (D. J. Brown & Fletcher, 2017; L. J. Martin et al., 2009), it becomes apparent that sport psychology interventions can indeed provide effective support to athletes and sport teams. Although there are several existing frameworks for the development of these interventions (Henriksen et al., 2019; Kay Bartholomew et al., 1998; Keegan, 2016), it is imperative to consider certain factors in order to ensure their effectiveness. These factors may include the environment in which the intervention takes place, and the importance of collaborative processes with relevant stakeholders throughout the intervention. In addition, one factor that is not reported in meta-analysis that is paramount to the effectiveness of sport psychology intervention is the practitioner themselves.

### **1.11 Effective Practitioner Skills for Delivering Sport Psychology Interventions**

Effective practitioner skills are thought to have potential to influence the success of psychological interventions (Fletcher & Maher, 2013; F. L. Gardner, 2001; Sharp & Hodge, 2011; Tod, 2007). For instance, effective sport psychology practitioners are believed to exhibit competencies such as relationship-building skills (Tod, 2007; Tod et al., 2019), counselling abilities (Sharp et al., 2015), and strong communication skills (Sharp & Hodge, 2011). However, even with progress in the field of applied sport psychology research, scholars argue that the literature primarily concentrated on how to implement and utilise knowledge, techniques, and theories while largely overlooking the study of sport psychology professionals (Andersen et al., 2000; Tod et al., 2017). Tod et al., (2017) emphasised the importance of recognizing the crucial role that sport psychology practitioners play in

delivering effective services. Researchers went as far as suggesting that sport psychologists are performers themselves, and highlighted that “as a consultant assisting performers, you yourself are a performer. Your success as a consultant will be determined largely by how you perform as a consultant, rather than how much you know” (C. Brown, 2009, p. 309). This underscores the need for scholarly focus on practitioners to enhance their professional development and practice (Quartioli, Wagstaff, & Thelwell, 2022).

Professional sports environments are characterised by high-pressure conditions that impose demanding expectations not only on athletes but also on coaches and support staff (Champ et al., 2020; Mellalieu, 2017). As a result, many practitioners may encounter difficulties in delivering sport psychology interventions within these contexts, despite possessing the requisite effective practitioner skills. These challenges may include difficulty successfully integrating (Larsen, 2017), coaches’ negative perception of sport psychology (Champ et al., 2020), maintaining confidentiality (Andersen et al., 2001; Sharp & Hodge, 2011), ever-present ethical dilemmas (Aoyagi & Portenga, 2010), and threats of job loss (Fletcher et al., 2011). Indeed, sport psychology practitioners noted that effectively managing oneself is vital for successful practice (Poczwadowski & Sherman, 2011).

In order to effectively navigate these challenges and maintain their well-being, practitioners ought to prioritise and actively engage in self-care strategies (Quartioli et al., 2019, 2021; Wise et al., 2012; Wise & Barnett, 2016). Quartioli, Wagstaff, and Thelwell (2022) defined self-care within the context of applied sport psychology using the Delphi method with a panel of 21 sport psychologists. The Delphi method involves gathering data from a group of experts through a series of iterative rounds with the aim of reaching consensus (Kaynak & Macaulay, 1984; Keeney et al., 2011). The participants in the panel had an average of 13.04 years of professional experience and represented six continents: North America (n=8), Europe (n=8), Africa (n=2), South America (n=1), Oceania (n=1), and

Asia (n=1), spanning ten countries. These professionals allocated their time between academic work and applied work. According to them, sport psychology self-care “is the purposeful engagement in activities grounded in one’s values. It involves prioritising, developing, preserving, protecting, monitoring and restoring holistic (i.e., physical, psychological, social, spiritual, and emotional) health, wellbeing and satisfaction with work and life” (Quartiroli, Wagstaff, & Thelwell, 2022, p. 1361). Quartiroli, Wagstaff, and Thelwell (2022) also explored examples of self-care strategies employed by their panel, and while panellists did not provide a definitive list of self-care behaviours or activities, the practices they discussed can be classified into four primary categories: intrapersonal (such as self-reflection, personal counselling, and mindful action), knowledge-based (including resource-seeking, personal reading, and continuing education), health-related (like exercise, rest, and nutrition), and profession-supporting (such as cultivating a culture of care and mobilising professional support networks). However, Quartiroli, Wagstaff, and Thelwell (2022) also suggested that due to the complexity and nuance of sports environments, along with the unique needs of clients in this context and the nontraditional nature of the working conditions, may require sport psychologists to develop a distinct and personalised set of practices (Andersen et al., 2001; Haberl & Peterson, 2006; Quartiroli et al., 2019; Stapleton et al., 2010). Consequently, self-care is a subjective experience and should be rooted in an individual’s personal and professional preferences regarding their way of being (Quartiroli, Wagstaff, & Thelwell, 2022). Therefore, when employing interventions, it is vital to consider the practitioner’s experience throughout their professional journey.

To conclude, given that sport psychologists play a vital role in the effectiveness of interventions (Poczwardowski, 2019), it is important that careful consideration is given in evaluating and reporting their involvement in research studies. For instance, papers could include who delivered the interventions, what qualifications they held, what their

philosophical standpoint was. In addition, it is important that adequate support and self-care strategies are available for practitioners working in high-performance sports to protect them from the challenges they will inevitably encounter. Such support may increase the effectiveness of their work while fostering personal and professional flourishing.

## **1.12 Resilience Interventions in Psychology**

Through conceptual studies, researchers repeatedly emphasised the possibility of cultivating individual (Sarkar & Fletcher, 2014) and team resilience (Morgan et al., 2019) over time. The subsequent sections will delve into the empirical evidence supporting these assertions. This exploration will involve examining interventions aimed at enhancing individual and team resilience in various non-sport performance settings, as well as interventions specifically designed and implemented in the high-performance sports domain.

### ***1.12.1 Individual Resilience Interventions in Performance Contexts Outside of Sport***

The first to conduct a systematic review to synthesise the evidence for the efficacy of resilience training was Robertson et al. (2015). Focusing specifically on workplace interventions, they identified 14 studies that met their criteria, all ranging in intervention components, length (single 90-minute session to 13 weekly sessions), and mode of delivery. The most common delivery format in their review was group-based training over a 10 to 11-week period (Arnetz et al., 2009; McCraty & Atkinson, 2012). The content of the training programmes in their review was diverse, including coaching related principles (Grant et al., 2009), mindfulness- and compassion-based practices (Pidgeon et al., 2014), as well as cognitive-behavioural techniques (Arnetz et al., 2009). Robertson et al. (2015) concluded that 13 out of the 14 studies demonstrated a statistically significant change in at least one of the dependent variables. However, only 6 studies directly measured resilience, with 3 demonstrating a statistically significant positive effect (viz. Grant et al., 2009; Sherlock-Storey et al., 2013; Sood et al., 2011). While it is not within the scope of this literature review

to list all the outcomes assessed in the studies, the most commonly studied dependent variable was mental health and subjective wellbeing. Despite reviewing 14 intervention studies, Robertson et al. (2015) found that due to the methodological weaknesses of those studies there is not enough sufficient evidence to draw clear conclusions about the effectiveness of resilience training. Furthermore, the variety in content and delivery methods of the training programmes limited the ability to determine the most effective design and delivery of such interventions (Robertson et al., 2015). However, it is important to note that Robertson et al. (2015) excluded qualitative and single case studies, which may resulted in the oversight of important resilience enhancing outcomes and effective interventions.

Similarly to Robertson et al. (2015), Vanhove et al. (2016) also conducted a review of resilience building programmes in the workplace. Their meta-analysis included 37 primary studies that met their criteria. They found that resilience building programmes improved performance and well-being outcomes and prevented psychosocial deficits. However, these effects appeared to diminish over time. This could be explained by participants not implementing the learned skills over time in universally implemented programmes, thus causing the effects to decline (Arthur et al., 1998). Nevertheless, with targeted programmes, the distal effects increased (Vanhove et al., 2016), highlighting the need to avoid a one-size-fits-all approach. Additionally, one-on-one delivery formats had the strongest effects, followed by classroom-based formats, which were the most commonly used delivery method (Vanhove et al., 2016). In conclusion, the meta-analysis shows promise regarding the small but significant effect of resilience building programmes in the workplace.

Joyce et al. (2018) implemented a more stringent inclusion criteria and quality assessment in their study. They only included studies that evaluated the effects of resilience enhancing interventions using validated measures. As a result, only 11 studies met their criteria for inclusion in the systematic review and meta-analysis. These interventions varied

in duration (ranging from a single 2-hour session to multiple session lasting up to 28 hours) and components (such as mindfulness, psychoeducation, emotion regulation, and goal setting). Out of the 11 studies, four reported statistically significant effects of the interventions. Joyce et al. (2018) concluded that interventions using mindfulness and/or cognitive behavioural techniques may have the potential to enhance resilience. However, similarly to previous researchers, Joyce et al. (2018) also excluded case study designs and qualitative studies from their analysis. Therefore, it can be inferred that resilience enhancing interventions may be effective, but the variations in intervention duration, delivery, and content underscore the importance of considering the context (i.e., for whom, when, what, for how long) in order to determine their true effectiveness.

While there is a substantial body of research discussing the effectiveness of various resilience enhancing interventions, there are only a few well-known comprehensive resilience training programmes. One such programme is The Penn Resiliency Program (PRP, Gillham et al., 1990) which consists of 12 weekly sessions lasting 90 minutes each, specifically developed for young adolescents at the University of Pennsylvania. It is delivered in a group setting and focuses on teaching cognitive-behavioural and social problem-solving skills (Gillham et al., 2007). Fundamental to PRP is the Activating-Belief-Consequences (ABC) model by Albert Ellis. Pupils apply the learned techniques through group discussions and weekly homework assignments (Gillham et al., 2007). The programme has been adapted and implemented in the UK, where it shown some positive effects on depression scores, absence rates, and academic attainment (Challen et al., 2014).

Another example is the U.S. Army Master Resilience Trainer (MRT) programme, a 10-day course designed to teach resilience skills (Reivich et al., 2011). The programme consists of three components: preparation, sustainment, and enhancement. During the preparation phase, participants undergo an 8-day curriculum based on the PRP, which

introduces the concept of resilience and teaches skills to increase resilience (such as understanding their ABCs; identifying personal character strengths; and focusing on strengthening relationships). The sustainment phase, delivered on Day 9, focuses on reinforcing the resilience skills learned and their practical application in a military setting. Developed by researchers at the Walter Reed Army Institute of Research, this phase aims to solidify knowledge gained. On the last day of the course, the enhancement phase, developed by sport psychologists at the United States Military Academy at West Point, focuses on learning performance enhancing skills such as mental skill foundations, building confidence, goal setting, attention control, energy management, and integrating imagery (Reivich et al., 2011). In addition to initial qualitative findings, longitudinal quantitative analysis of the programme shows a positive impact (Lester et al., 2011), particularly among younger soldiers aged 18-24.

A similar programme was developed in the British Army based on a model by the Defence Human Capability and Science Technology Centre in 2014 (Precious & Lindsay, 2019). The Mental Resilience Training (MRT) is a mindfulness-based psychological skills training package that incorporates mindfulness based and cognitive behavioural principles and techniques. The aim of MRT is to enhance individual resilience in a realistic military setting at the earliest phase of a soldier's career. Within the programme, seven psychological skills are taught: goal setting, dealing with negative thoughts, positive thinking and self-talk, emotion regulation, arousal reduction, pain tolerance mental rehearsal, and positive imagery (Precious & Lindsay, 2019). The programme is delivered in three stages: the psychological skills are taught in 30-minute sessions spread over 28 weeks in phase one, in phase two Platoon Training Teams reinforce the learned skills in training scenarios, and in phase three Platoon Training Teams receive 1.5 days of training. Although no formal qualitative or quantitative review has been published, Precious and Lindsay (2019) reported positive

outcomes of the MRT, and the programme was rolled out across all army training establishments within the Army Recruitment and Training Division.

The findings above demonstrate that there is a considerable number of published interventions beyond the realm of sports that aim to enhance individual resilience, there is a critique that these interventions exclusively focus on internal factors. According to Taylor (2019), “without consideration for external factors affecting resiliency, resiliency training alone implies that vulnerability to workplace stressors is the result of the personal weakness and failure of the individual to cope” (p. 11). Therefore, whether the objective is to enhance individual resilience in the workplace or elsewhere, practitioners and researchers should consider the interaction between the individual and the environment. A potential initial step could involve conducting a stress audit or contextual needs assessment prior to proceeding with further endeavours in that particular setting. This approach would enable the identification of specific stressors to be targeted, ultimately leading to more effective intervention outcomes.

### ***1.12.2 Individual Resilience Interventions in Sport***

In sport, Fletcher and Sarkar (2016) developed the mental fortitude training programme underpinned by resilience-related theory as an evidence-based approach to enhance individual psychological resilience. They identified three key areas crucial for improving performers’ ability to withstand pressure: *personal qualities*, *a facilitative environment*, and *a challenge mindset* (Fletcher & Sarkar, 2016). Personal qualities encompass the psychological factors that shield individuals from negative consequences of stressors and consists of three aspects: stable personality characteristics, amenable psychological skills, and desirable outcomes. Consequently, the programme’s objective is to optimise an individual’s personal qualities to enhance their ability withstand pressure. In accordance with Taylor’s (2019) observation, the programme acknowledges the significant



influence of the environment on an individual's resilience. Therefore, building on Sanford's theory (1967) of challenge and support, the authors proposed that cultivating psychological resilience requires the establishment and maintenance of a facilitative environment. Such an environment is characterised by healthy competition, learning from mistakes and failures, and recognising and celebrating success (Fletcher & Sarkar, 2016). One way of creating such environment is by Pressure Inurement Training, where pressure is gradually increased in a training setting through task manipulation, accompanied by increased support provided through learning opportunities for the individuals. Lastly, the concept of a challenge mindset involves positively evaluating the pressures individuals encounter (Fletcher & Sarkar, 2012), which is determined by an individual's personal qualities and the presence of a facilitative environment. Individuals first appraise an event as either a threat or a challenge (Lazarus, 1966, 1981; Lazarus & Folkman, 1984; Lazarus & Launier, 1978). Subsequently, they assess their available resources to deal with the identified event (Lazarus, 1964, 1966) and evaluate their thoughts and emotions in relation to their relevance for performance and well-being (Fletcher et al., 2006). Thus, the mental fortitude programme provides cognitive-behavioural strategies for regulating thoughts.

Fletcher and Sarkar (2016) suggested that the mental fortitude training programme should start with explaining what resilience is and what it is not. This is crucial due to the prevalence of misconceptions and the potential negative consequences of an overly rigid interpretation of resilience on health and wellbeing (Fletcher & Sarkar, 2016). Behaviours such as struggling to cope should not be perceived as a weakness, and resilience should not be seen as a 'badge of honour' (Fletcher & Sarkar, 2016). In the initial phase of implementing the intervention, individuals should assess their responses to high-pressure situations to allow for the customization of the intervention according to their specific needs. The authors suggest addressing all three areas (personal qualities, facilitative environment, and challenge

mindset) to enhance individuals' ability to withstand pressure. Unlike other resilience enhancing programmes, such as the PRP (Gillham et al., 1990), U.S. MRT (Reivich et al., 2011), and U.K. MRT (Precious & Lindsay, 2019), the mental fortitude programme does not incorporate specific modules, content, or training durations. Additionally, it remains unclear who should lead the programme (e.g., coach, or sport psychologist), the appropriate age range for participation, and how the programme's effectiveness should be measured.

A more regulated resilience training programme for adolescent male athletes was developed by S. A. Vella et al. (2021) as part of the Ahead of the Game (AOTG) programme. AOTG is a comprehensive programme offered to community sports clubs, consisting of multiple components (e.g., mental health literacy, resilience) and levels (e.g., programmes for adolescents, coaches, and parents). The resilience component of the intervention titled "Your Path to Success in Sport", targets key psychological skills derived from Fletcher and Sarkar's (2012) study. Its objective is to help individuals cope with adversity through sport-based examples. The programme is delivered through a team based face-to-face workshop (approximately 45 minutes long) that identifies inevitable adversities in and outside of sport, as well as six online modules, each lasting 15 minutes (S. A. Vella et al., 2021). The online modules cover the following topics: (i) problem solving, (ii) controlling the controllables, (iii) managing your thoughts, (iv) keeping your cool, (v) playing to your strengths, and (vi) appreciating your team (S. A. Vella et al., 2021). Other components of the AOTG programme include a "Help Out a Mate", a parent and a coach mental literacy programme. The adolescent programme involved 350 participants in the intervention group and 466 participants in the control group. It demonstrated significant benefits in various areas such as depression literacy, anxiety literacy, intentions to seek help from formal sources, confidence in seeking mental health information, resilience, and well-being. However, it is important to note that although S.A.Vella et al. (2021) noted the advantage of combining face-to-face and

online components in this population, only 30% of the participants completed all the modules of the intervention. Nonetheless, a notable strength of the programme lies in its inclusion of end-users during the planning phase, ensuring that the AOTG programme targets their specific needs. Although this may limit its generalisability to other contexts; it however emphasises the importance in resilience intervention research of avoiding a “one size fits all” approach. Additionally, the authors highlight the benefits of combining mental health literacy intervention components with resilience training in this particular context.

Also combining mental health with resilience, The Scarlet and Grit resilience training programme developed by Sullivan et al. (2023), aims to enhance the mental health of college student-athletes. This programme is underpinned by cognitive-behavioural therapy (CBT), mindfulness, and positive psychology, and incorporates important sport psychology principles and strategies such as mindset, grit, radical acceptance, and self-compassion. Two sport psychologists deliver the Scarlet and Grit resilience training programme, with the goal of equipping student-athletes with the skills and abilities to effectively cope with stressors (Sullivan et al., 2023). The programme consists of one group session per year, totalling four group sessions over a student-athlete’s collegiate career. It covers three main topics: (1) Stress Models, (2) Skill Building, and (3) Application of Learned Skills. In the study, 79 university athletes participated, with 36 males and 43 females from various sports including rowing, field hockey, baseball, women’s soccer, volleyball, cross country and track and field, and golf. Interestingly, Sullivan et al. (2023) found a significant positive effect on participants’ intention to use adaptive coping strategies, but did not observe an increase in their knowledge of such strategies. Notably, female athletes exhibited greater knowledge of adaptive strategies compared to their male counterparts. However, while resilience was measured at baseline, it was not measured post-intervention which prevented a direct examination of the programme’s impact on resilience scores (Sullivan et al., 2023). This is

somewhat surprising, considering that the programme spanned an individual's entire collegiate career, with one session delivered each year. Furthermore, considering that the participants only received one session per year, it is debatable how much of the information would have been effectively retained. Nonetheless, through a survey, the athletes reported that the programme was applicable, relevant, and beneficial.

Also researching the population of student-athletes, Kuchar et al. (2023) developed and tested the Resilience and Enhancement in Sport, Exercise & Training (RESET) programme. This intervention was adapted from a self-compassion intervention (MSC, Neff & Germer, 2013) and it consists of six online sessions lasting one hour each, delivered over a four-week period. The RESET programme was built on the authors' four pillars of resilience: mindfulness, connection, encouragement, and productive feedback. Its purpose was to provide athletes with a framework for learning from setbacks. 250 participants took part in Kuchar et al.'s (2023) study from 14 National Collegiate Athletics Association (NCAA) teams. The sessions were delivered to each team separately, aiming to enhance adherence and impact on the specific team. The results indicated that RESET had a significant positive effect on athletes' self-compassion, but only for those who initially had moderate to low levels of self-compassion. Furthermore, the programme significantly reduced self-criticism, but only for those who initially scored higher on self-criticism. Additionally, the participants demonstrated significant decreases in depression, anxiety, and stress. However, the programme did not lead to increases in general resilience or flourishing. The authors acknowledge that it might take more time for resilience to be positively influenced by their intervention.

In summary, the interventions that have been published with the aim of enhancing individual resilience, both within and outside the context of sport, exhibit considerable variation in terms duration, components, and delivery methods. Consequently, it is a

challenge to definitely ascertain their effectiveness. Moreover, in the realm of sport, the absence of a sport specific measure of individual resilience further complicates matters. However, despite these obstacles, it is possible to extract key concepts from these studies that can be applied to the specific context in which individuals operate. For instance, adopting a targeted approach to resilience enhancement, as opposed to a one-size-fits-all approach (Vanhove et al., 2016), or focusing on enhancing personal qualities (Fletcher & Sarkar, 2016; Precious & Lindsay, 2019; S. A. Vella et al., 2021) that team members can draw upon when facing adversity, is crucial. These considerations are can be vital for the development of not only individual but team resilience, as it is believed to stem from both individual and team resources (Gucciardi et al., 2018; Hartwig et al., 2020; Morgan et al., 2013).

### ***1.12.3 Team Resilience Interventions in Performance Contexts Outside of Sport***

While a limited number of published interventions exist aimed at enhancing team resilience, it is crucial to examine previous research approaches to developing team resilience. For instance, within the broader domain of team resilience research, Amaral et al. (2015) conducted a survey involving 115 individuals employed in the field of Information System and Technology. This survey sought to ascertain the participants' perspectives on the most effective actions for improving resilience. The survey items - actions to enhance team resilience - were based on existing literature and input from experienced researchers obtained through 'brainstorming sessions'. The authors compiled the participants' responses and identified "promoting collaboration among project team members" as the most highly rated approach to developing team resilience. Although Amaral et al. (2015) did not conduct an intervention themselves, their study highlighted the potential advantages of surveying the target population to gain a deeper understanding of the most effective strategies within a specific context.

Using similar approaches to Amaral et al. (2015), Alliger et al. (2015) also did not conduct an intervention, but instead proposed a number of suggestions based on 25 years of insights drawn from research and consultancy with teams. They proposed that teams go through the following three stages when faced with an adverse event: (1) minimise, (2) manage, and (3) mend. Minimising behaviours include planning for potential harmful events, managing includes the actions teams take while in a challenging scenario, whereas mending refers to post-event actions such as debriefs. The authors further synthesised forty team resilience behaviours under each of these three stages to help researchers and practitioners who wish to build resilience with their respective teams. Therefore, Alliger et al. (2015) suggested that to develop team resilience, teams should: a) develop tools and assemble documents (e.g., guidebooks); b) conduct team resilience training/facilitated sessions (e.g., to prepare teams to minimise and manage challenging events); and c) conduct post-challenge debriefs (e.g., involving reflection, discussion, and action planning). Alliger et al. (2015) emphasised that a helpful starting point for teams might be to have a ‘team resilience discussion’ where they discuss recent and upcoming challenges. The authors’ guide to developing team resilience is undoubtedly detailed, with specific strategies that teams can choose from, or assess their own resilience strategies against those identified by Alliger et al. (2015). However, more information on how teams could apply the identified strategies in specific situations such as adversity or pressurised moments would have provided a greater insight into how these are operationalised with impact.

The first published team resilience intervention was developed by Bennett et al. (2010). They designed a team resilience intervention specifically for young restaurant workers, as Masten et al. (2006) identified that resilience training is especially important during emerging adulthood. Bennett et al. (2010) incorporated insights from stakeholders in the development process, including consultations with industry experts, focus groups with the

target population, and the formation of a steering committee. Their team resilience programme was adapted from the Team Awareness Program (Bennett et al., 2000) and centred around “The 5 Cs” (community, compassion, confidence, commitment, and centering) proposed by Friborg et al. (2003). The programme was delivered over 3 days and included one 2-hour session per day, totalling in 3 sessions of 2 hours each, covering 9 modules. In the paper, the authors outline the content covered in each session, making the 2-hour sessions rather ambitious. However, 124 restaurant workers from 14 restaurants participated in the study, with 37% attending all three sessions (Bennett et al., 2010). Participants who attended all three sessions demonstrated an increase in personal resilience, however those who only attended one or two sessions did not exhibit significant changes in resilience. It is important to note that the questionnaires used were not scientifically validated and measured personal resilience rather than team resilience despite it being a team resilience intervention. Additionally, no follow-up measures were included.

Expanding on the research conducted by Bennett et al. (2010), Petree et al. (2012) implemented the same team resilience programme for young restaurant workers but employing different measures. Petree et al. (2012) assessed stress levels using the Exposure to Problems Coworkers Scale (EPCS) and the Personal Stress Scale (PSS). These measures were specifically developed for this study from two focus groups with the target population. The study involved 947 restaurant workers from 28 restaurants, with 14 of them serving as the control group. The team resilience programme followed the same structure as Bennett et al.’s (2010) study, with the addition of six-minute booster sessions conducted six months after the initial training programme. Furthermore, Petree et al. (2012) included follow up assessments, which involved survey assessments at baseline, 6 months, and 12 months after the baseline. It is important to note that only 83 out of the 947 participants completed all the surveys at each time-points. Due to participant attrition, and workforce changes, the statistical

analyses were conducted on the restaurants rather than on the individual participants (Petree et al., 2012). As a result, it cannot be confirmed that the same participants took part in the intervention at all time-points nor that the same participants completed the surveys. Although the statistical analyses did not yield significant findings, the authors still noted that the programme may reduce both personal and work-related stress. Additionally, it is worth mentioning that Petree et al. (2012) also did not directly measure team resilience. However, an interesting and relevant finding from their study, which corroborated previous research by Martin (1997) and Matud (2004), was that female participants reported higher levels of stress.

Albott et al. (2020) developed a Psychological Resilience Intervention for healthcare workers derived from the US Army's Battle Buddy System (Ramsberger et al., 2003). The intervention also incorporated elements from the Anticipate-Plan-Deter (APD) model, which aims to mitigate psychological consequences for healthcare workers responding to disasters (Schreiber et al., 2019). The intervention consists of three levels of support: peer support, unit-level support, and individual support. Peer support involves pairing individuals with a battle buddy who shares similar demographics, professional roles, and seniority. The purpose of this type of support is to provide a platform for discussing daily challenges and successes with someone who can relate to their experiences, rather than with a therapist (Albott et al., 2020). In the US Army, more than 80% of soldiers reported being satisfied with this system (Ramsberger et al., 2003). Unit-level support, offers small-group sessions led by a mental health consultant who helps individuals apply the APD model by anticipating and identifying stressors, planning their responses to the stressors, and deterring becoming overwhelmed (Albott et al., 2020). Individual support allows healthcare workers to access one-on-one support from their assigned mental health consultant at no cost (Albott et al., 2020). Although there is currently no empirical data supporting the programme's effectiveness as it is still ongoing, the intervention components show promise.



Similarly to Albott et al. (2020), Dubois et al. (2020) developed a team resilience intervention for healthcare workers. Although their intervention is detailed, they are still in the planning phase and aim to co-construct their team resilience programme with relevant stakeholders to make sure that they take context specific as well as the stakeholder's needs and preferences into account (Dubois et al., 2020). The intervention and activities they propose focus on three main abilities: (a) monitoring and anticipating hazardous situations and preparing for them, (b) responding to difficult, and stressful situations, and (c) learning from such situations. While the researchers recommend that teams use their intervention as a framework and adapt it to their specific needs, they also suggest a list of activities that can help teams develop these three basic abilities. For instance, to respond to difficult, stressful situations when they arise, teams could attend workshops and simulation exercises or develop contingency plans/protocols to respond to difficult and stressful situations (Dubois et al., 2020). Additionally, the intervention aims to enhance team resilience at three levels: individual, team, and organisation. For their empirical research, the authors proposed a longitudinal quasi-experimental design lasting approximately 24 months, with a follow up period after 12 months. The effectiveness of the intervention will be assessed through four dependent variables: team resilience, perceived effectiveness of the team, well-being at work measured by burnout, and absenteeism. Furthermore, to analyse the process of co-construction and implementation, the authors proposed a longitudinal multiple case study approach. Like Albott et al. (2020), there is currently no empirical data to support the effectiveness of the proposed intervention.

More recently, Gil-Hernández et al. (2025) developed and evaluated *eResiliencia*, a web-based intervention aimed at strengthening resilience among healthcare professionals through middle management support. The three-phase study—spanning design, expert validation, and pilot implementation—produced a platform focused on individual, team, and

organisational resilience. Validation by international experts confirmed strong content quality and usefulness, while pilot testing with 362 Ecuadorian health professionals demonstrated significant knowledge gains and high satisfaction levels. The findings highlight the strategic role of middle managers in resilience-building efforts and support digital interventions as a viable tool for enhancing workforce well-being and performance. Gil-Hernández et al. (2025) study further highlighted the vital role of the utilisation of expert knowledge in developing a resilience intervention. In addition, Gil-Hernández et al. (2025) recommended that it is crucial to assess the organisational context and adapt the intervention to ensure it is well-aligned with the specific needs of the setting. Accordingly, this underscores the importance of tailoring resilience interventions through expert input and contextual adaptation to enhance their relevance and impact.

It is clear that team resilience training is still in its early stages when compared to individual resilience interventions. While there are no other published team resilience interventions outside of sports, a recent monograph on team resilience research (Gomes et al., 2022) put forth important considerations for the development of a training programme. Gomes et al. (2022) argued that any team resilience training should occur on multiple levels, including the individual level, team level, and organisational level. At the individual level, interventions could focus on creating conditions that promote the development of necessary resources to enhance subjective well-being and personal resilience in individuals (Robertson et al., 2015). At the team level, the cultivation of team processes (e.g., team learning) and states (e.g., collective efficacy) can contribute to the emergence of team resilience (Gomes et al., 2022). Lastly, any team resilience training “must be nested with organizational efforts and driven by leaders” (Gomes et al., 2022, p. 8), highlighting the vital role that leaders play. Therefore, the organisation in which teams operate holds significant influence and responsibility in creating an environment that fosters enhanced team resilience.

#### ***1.12.4 Team Resilience Interventions in Sport***

To date, empirical research on team resilience in sports teams primarily centred on the conceptualisation of team resilience (Morgan et al., 2013, 2015, 2019) and the quantitative validation and identification of resilient team characteristics and its related constructs (Fransen, McEwan, et al., 2020; López-Gajardo, García-Calvo, González-Ponce, Cantú-Berrueto, et al., 2022; López-Gajardo, García-Calvo, González-Ponce, Díaz-García, et al., 2022). More recent studies described how this research on sports teams can transfer to practice (Sarkar & Page, 2022). To illustrate, *transformational leadership* can be demonstrated by positively influencing the motivation, morale, and performance of team members via a variety of inspirational methods during challenging situation (Sarkar & Page, 2022). *Shared leadership* can be demonstrated by the establishment of leadership groups, thereby promoting connectivity (Morgan et al., 2015). *Social identity* has also been identified to influence team resilience, thus by cultivating a “we” and “us” rather than “I” and “me” identity, team members can align their thoughts and behaviours with those defined by the group (Sarkar & Page, 2022). Teams with shared mental models can anticipate and predict their teammates’ needs and coordinate their actions in challenging situations. Shared mental models can be developed through *team leaning* activities such as away-days and after-action reviews (Sarkar & Page, 2022). Lastly, team resilience can be enhanced through *team enjoyment and positive emotions*. In practice, this can be demonstrated by planning and organising social occasions during setbacks or using humour during challenging situations (Morgan et al., 2015).

Although there is a growing body of qualitative research that identified important findings and practical implications for coaches and sport practitioners, there is a need to conduct quantitatively measurable interventions aimed at enhancing team resilience in order to advance research that points to the effectiveness of interventions in the field. Similarly to

other performance domains explored in the previous section, within the context of sport psychology, only a few empirical studies have been published. Kegelaers, Wylleman, et al. (2021) implemented a pressure training intervention with an elite level female basketball academy. The intervention, co-developed with the team's coaching staff, consisted of a 1 ½-hour workshop prior to the pressure training, eight on-field pressurised training sessions integrated into their regular training, and formal reflections after each training session (Kegelaers, Wylleman, et al., 2021). The effectiveness of the intervention was quantitatively assessed using the CREST (Decroos et al., 2017). The results showed a reduction in team vulnerabilities shown under pressure, but no significant changes in the demonstration of resilient characteristics subscale. It is worth noting, however, that out of the two participating groups, only one experienced a significant reduction in team vulnerabilities. Nonetheless, Decroos et al. (2017), the developers of the questionnaire, suggested that reducing team vulnerabilities may be the first step in enhancing team resilience. Kegelaers, Wylleman, et al. (2021) pointed out that longitudinal studies are needed to determine whether a decrease in team vulnerabilities over time leads to an increase in team resilience characteristics. However, the researchers did not specify the required duration for the suggested longitudinal approach. Additionally, Kegelaers, Wylleman, et al. (2021) qualitatively evaluated their intervention through in-depth interviews, revealing promising findings regarding its effectiveness. Several psychosocial qualities previously linked to resilience were influenced, including stronger communication channels, shared mental models, increased awareness, emerging leadership, and the development and execution of a collective plan (Kegelaers, Wylleman, et al., 2021).

Furthermore, Tassi et al. (2023) conducted a four-week training programme that utilised stressful constraints to enhance team resilience and reduce precompetitive anxiety. A quasi-experimental design with repeated measures was employed, encompassing a pre-

intervention assessment, a post-intervention assessment and a follow up evaluation. Two independent groups, namely the control group and the experimental group, were included in the study. The intervention was delivered to 51 elite male youth soccer players through four training sessions per week. The training sessions incorporated various constraints such as the coach confiscating possession from the team that lost the ball twice in a row. The results indicated that the intervention group experienced a decrease in both worry and disruptions to concentration following the programme. The authors stated that the intervention did not impair the participants' sense of team resilience, as measured by the CREST (Decroos et al., 2017). However, it remains unclear whether any psychological support was offered to the participants alongside the constraints.

Both published team resilience intervention studies in the context of sport have used the CREST (Decroos et al., 2017) as a measure of team resilience. However, both studies were relatively short in duration and specifically focused on youth/academy athletes. Therefore, there is a gap in the existing literature regarding longitudinal team resilience interventions with adult athletes competing in performance sport, as suggested by multiple researchers (Chapman et al., 2021; Gucciardi et al., 2018). Considering the importance of temporal aspects of team resilience, adopting a longitudinal approach would provide insight into a team's development over a specific period of time and enable a more accurate assessment of the effectiveness of an intervention using a self-report measure such as the CREST (Decroos et al., 2017).

More recently, Baker-Bates et al. (2024) conducted an intervention aiming to examine the effectiveness of an online team identity intervention with one esports team. The intervention implemented in their study was a tailored version of the 5R programme (Haslam et al., 2017), specifically adapted to reflect insights from sport-specific research (e.g., Mertens et al., 2020). Delivered over four sessions within a two-week period, the programme

incorporated structured activities designed to strengthen team identity which has increasingly been recognised as foundational to team resilience in high-pressure performance environments. This adaptation highlights the value of context-sensitive interventions that draw on established theoretical frameworks while addressing the unique demands of emerging competitive domains. Baker-Bates et al. (2024) findings suggest that the programme may foster social identification and collective efficacy and bolster team resilience measured by the CREST (Decroos et al., 2017). Qualitative responses reinforced these outcomes, pointing to improved communication, a stronger sense of belonging, and increased player commitment. These preliminary results highlight the promise of social identity-based interventions in strengthening team resilience in esports settings. However, Baker-Bates et al.'s (2024) study only included male participants therefore there is a crucial need to conduct such resilience enhancing interventions with female participants.

In conclusion, while research on team resilience interventions is still in its early stages, several studies explored various approaches and methods to enhance resilience within teams across different sectors. Early efforts, such as those by Amaral et al. (2015) and Alliger et al. (2015) provided valuable insights into effective strategies for fostering resilience, though they largely focused on theoretical frameworks rather than direct interventions. While interventions have been delivered to enhance team resilience, they produced mixed results due to their methodological limitations such as no empirical data (Albott et al., 2020; Dubois et al., 2020), not using a scientifically validated team resilience scale (Bennett et al., 2010), and participant attrition and workforce changes (Petree et al., 2012). Notably, interventions in high-performance sports, including the work by Kegelaers et al. (2021), Tassi et al. (2023) and (Baker-Bates et al., 2024) shown promising results in enhancing team resilience, but they too highlight the need for longer, longitudinal studies to fully assess the impact of these interventions. Nevertheless, given the nascent stage of research in this area, identifying the

most effective approach for developing team resilience over time presents a challenge.

Despite the promising developments, there remains a gap in the literature regarding comprehensive, longitudinal team resilience interventions in adult athletes. West et al. (2009) discovered that as team members shared more experiences and faced challenges a prolonged period, their level of agreement regarding their perception of resilience also increased. Consequently, this emphasises the need for further research to better understand the temporal dynamics of team resilience and the factors that contribute to its development.

### **1.13 Rationale, Purpose, and Structure of the Thesis**

While there has been an expansion in the scientific research on resilience, it is evident from the literature review that the development of interventions is still emerging. Outside of the context of sports, several resilience training programmes were developed and implemented such as the Penn Resiliency Program (Gillham et al., 1990), the Master Resilience Training (U.S.) (Reivich et al., 2011) or the Mental Resilience Training (UK) (Precious & Lindsay, 2019). While systematic reviews and meta-analyses were conducted to explore published resilience enhancing interventions' effectiveness (Joyce et al., 2018; Robertson et al., 2015; Vanhove et al., 2016) due to the variations in definition and conceptualisation of resilience, intervention length, intervention components, and delivery methods, no clear conclusions could be drawn. In the context of performance sports, interventions remain limited, primarily targeting mental health through enhancing resilience (Sullivan et al., 2023; S. A. Vella et al., 2021). This may be due to the lack of sport specific measure for individual resilience, posing a significant challenge for researchers to conduct and evaluate such interventions. At the team level, outside of the context of sports, there is also a growing body of published interventions, but many are still in the developmental phase and lack empirical data to support their effectiveness (Albott et al., 2020; Dubois et al., 2020). In the field of team sports, two relatively short team resilience interventions were

conducted utilising pressure training and a constraints led approach (Kegelaers, Wylleman, et al., 2021; Tassi et al., 2023). While these studies provide some evidence that team resilience can be developed, further research is needed to address the limitations identified in these studies to develop a stronger evidence base for effective intervention impact.

One of these limitations include the need for the development and implementation of longitudinal team resilience interventions, incorporating multiple time points to adequately capture changes in team resilience (Chapman et al., 2021; Gucciardi et al., 2018; Kegelaers et al., 2021; Morgan et al., 2019). This would allow an insight into the team's resilience trajectory and temporal changes over time. Furthermore, many researchers advocated for a co-production approach to these interventions, recognising the context specific nature of stressors, that are crucial to the study of team resilience (Bennett et al., 2010; Dubois et al., 2020; Kegelaers, Wylleman, et al., 2021). Thus, a team resilience intervention could be co-produced with relevant stakeholders. Additionally, the literature review pointed to team resilience being a multi-level construct where team resilience is believed to stem from individual and team level resources (Gucciardi et al., 2018; Hartwig et al., 2020; Morgan et al., 2013). Therefore, an examination into their relationship could pose an interesting research avenue. Lastly, there is a noticeable gender gap in the available published studies within the field of sport psychology (P. C. Jackman et al., 2025; Walton et al., 2022), with more interventions developed for male athletes, compared to female athletes (D. J. Brown & Fletcher, 2017). Thus, further research is needed to support the fast progression of women's sport.

Taking these findings together, to continue to advance our knowledge and application of team resilience research, the present thesis aimed to design, develop, implement, and evaluate a multi-level longitudinal team resilience intervention within the context of high-performance women's sport. Consequently, the following research objectives were set out:



1. To identify the contextual stressors within high-performance women's football (Chapter two)
2. To explore effective team resilience strategies and perceived gaps for team resilience development within high-performance women's football (Chapter two)
3. To co-produce a context specific team resilience intervention with relevant stakeholders (Chapter three)
4. To implement a multi-level, season-long psychosocial intervention within professional women's football (Chapter three)
5. To evaluate the effectiveness of a multi-level, season-long psychosocial team resilience intervention within professional women's football (Chapter three)
6. To examine effective team level intervention design in high-performance sport (Chapter three and four)
7. To conduct an exploration of researcher reflections on the challenges encountered as a researcher-practitioner in professional women's football (Chapter four)

This thesis comprises the following chapters: (1) Chapter one, where a detailed overview is provided of the resilience research to date including its conceptualisation, measurement, and development; (2) Chapter two presents the findings of the contextual needs assessment carried out in high-performance women's football that sought to identify the stressors, effective team resilience practices, and areas for improvement in team resilience; (3) Chapter three examines the co-produced multi-level longitudinal intervention, including a quantitative assessment and a qualitative process evaluation with a sample of professional women's football team; (4) Chapter four provides an in depth reflection using confessional tales presented as creative non-fiction vignettes of challenges encountered whilst undertaking research in a high-performance environment; finally (5) Chapter five provides a summary of

the overall research findings, contribution to the field of sport psychology, applied implications, strengths and weaknesses of the project and future research directions.

# **Chapter Two: Team Resilience in High-Performance**

## **Women's Football: Contextual Stressors and**

## **Opportunities for Development<sup>1</sup>**

In the previous chapter, the concept of psychological resilience across various performance contexts was examined, with a particular focus on high-performance sports. This exploration was followed by a review of recent theoretical advancements in team resilience, initially considering performance environments outside of sport, before narrowing the scope to team sports. Following on, the development and design of effective interventions in sport psychology was discussed, with particular attention to resilience-enhancing strategies at both the individual and team levels. The literature review highlighted several gaps in the current research, underscoring the need for further exploration of team resilience, particularly through the development and implementation of longitudinal interventions. This chapter presents the findings of the first phase of this research, which involves identifying contextual stressors, effective practices, and existing gaps in the development of team resilience within the context of high-performance women's football.

### **2.1 Introduction**

Women's sport continues to face significant challenges including low media coverage, reduced sponsorships, underrepresentation in leadership roles, inadequate funding, and inequitable opportunities and career progressions (for a review, see Thomson et al., 2023). The England women's football team defeated Germany at the 2022 UEFA Women's EURO final in front of a record 87,192 spectator crowd, despite battling against the Football

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<sup>1</sup> Szabadics, A., Morgan, P. B. C., Sarkar, M., McEwan, D. & McCormack, F. (2025). Team resilience in high-performance women's football: Contextual stressors and opportunities for development. *Journal of Applied Sport Psychology*, 37(1), 23-48. <https://doi.org/10.1080/10413200.2024.2361691>

Association's ban to play on affiliated grounds, experiencing significant underfunding, and facing an alarming number of gender discrimination incidents. Despite the adversity encountered during the England teams' journey, the England team's manager Sarina Wiegman described her squad as 'resilient' following the landmark UEFA Cup winning success (BBC, 2022). The ability of high-performance sports teams to withstand unique stressors, such as those experienced by the England team, is a prerequisite for success.

The prevalence of stressors in women's sport has received notable research interest over the past decade due to the consequences they may place on individuals. For instance, women were found to report financial hardship, adverse discrimination, and interpersonal conflict at higher rates than men (Walton et al., 2021). These are important findings as women also reported lower rates of well-being, higher rates of mental health symptoms, and higher rates of anxiety and eating disorders (Gorczynski et al., 2017; Kuettel et al., 2021). Through a narrative review, Pascoe et al., (2022) found several psychosocial stressors influencing the participants such as cyber abuse, sexual harassment, concerns around family planning, disparity of wages, media coverage, and sexualisation in the mainstream media. In relation to team sports, Nicholls et al. (2007) found that whilst male athletes described more stressors relating to injuries, female athletes reported more stressors concerning communication and interpersonal relationships with their teammates. Therefore, when researching and developing the ways in which teams can overcome challenges, it is important to take into consideration demographic differences (Arnold et al., 2016).

Developing an understanding of how athletes achieve and sustain high levels of performance over time despite the pressures of high-performance sport has been addressed through the study of psychological and team resilience. Regarding team resilience, in the performance sport context, the most widely adopted definition is from Morgan et al. (2013) who defined the construct as, "a dynamic, psychosocial process which protects a group of

individuals from the potential negative effect of stressors they collectively encounter. It comprises of processes whereby team members use their individual and collective resources to positively adapt when experiencing adversity.” (p. 552). More recently, other theoretical conceptualisations of team resilience have been proposed, such as it being an emergent state (Bowers et al., 2017) or an emergent outcome (Gucciardi et al., 2018). Despite differences in conceptualisations, Hartwig et al. (2020) suggested that all the various perspectives represent the construct in a complementary way (e.g., capacity, process, emergent state, or emergent outcome) as they may capture aspects of the same team resilience construct. Hartwig et al. (2020) proposed an integrative view and argued that the various conceptualisations “are embedded in a dynamic team process cycle that includes: contextual factors and team composition factors, team interactions, team emergent states, and team process outcomes” (p.27).

Team resilience is viewed as a malleable construct that can be developed over time. Indeed, team resilience research has shown that leveraging a team’s individual and collective resources enhances their ability to withstand stressors (c.f. Gucciardi et al., 2018). When team resilience practices are implemented, this can increase the team’s performance and the wellbeing of its members (Sarkar & Page, 2022). In the area of sports psychology, team resilience research has identified the resilient characteristics of elite sports teams; key underlying team resilience processes; and specific cues, strategies and enablers that can facilitate the development of team resilience (Morgan et al., 2013, 2015, 2019). For example, resilient sport teams are characterized by the following four characteristics, (1) group structure (conventions that shape group norms and roles), (2) mastery approaches (shared attitudes and behaviors that promote an emphasis on team improvement), (3) social capital (the existence of high quality interactions and caring relationships), and (4) collective efficacy (a group’s shared beliefs in its ability to perform a task) (Morgan et al., 2013). To

develop such a resilient team five psychosocial processes have been found including (1) transformational leadership, (2) shared leadership, (3) team learning, (4) social identity, and (5) positive emotions. Drawing on these findings, a team's resilience can be enhanced through specific strategies. To illustrate, to develop mastery approaches, team learning (Alliger et al., 2015; Chapman et al., 2022) can be promoted through away-days and after-action reviews (Sarkar & Page, 2022), therefore bolstering team resilience.

Despite the growth in resilience research that points to the benefits of developing effective interventions in sports psychology, researchers have only recently started to conduct such investigations. At the individual level, Vella et al. (2021) reported positive outcomes for their mental health literacy and resilience program (Ahead of the Game). These outcomes included an increase in participants' resilience, depression and anxiety literacy, intentions to seek help from formal sources (e.g., doctor), confidence to seek mental health information, and well-being (Vella et al., 2021). In another study, individuals taking part in the same program reported reduced psychological distress and improved wellbeing through increased resilience scores (Schweickle et al., 2023). Kuchar et al. (2023) found that their resilience intervention (RESET) also led to positive outcomes such as increases in perceptions of participants' self-compassion, reduced self-criticism, and greater improvements in perceived performance. Though their brief online intervention did not directly increase participants' quantitative resilience scores, participants reported that it helped them learn tools to foster resilience. In addition, Kuchar et al. (2023) suggested that it may take longer to see quantitative increases in levels of psychological resilience reinforcing the dynamic feature of this psychological process. Moreover, Sullivan et al.'s (2023) resilience training program showed a growth in participants' intentions to use adaptive coping strategies, with student-athletes highlighting the appropriateness, usefulness, and helpfulness of the training program. Whilst the authors were not able to collect post-program measures of resilience, their findings

indicated that such interventions may provide student-athletes with the skills to effectively withstand stressors thus impacting on their resilience. Consequently, findings of these four studies suggest that resilience and protective factors can be developed over time via interventions and training program.

Turning to the study of team resilience interventions in sport, there remains a paucity with only two short studies to draw on that used co-design approaches to development. Kegelaers et al. (2021) implemented a 3-week pressure training intervention in elite level female basketball consisting of a single workshop and eight on-field sessions. Whilst team resilience scores did not increase, the qualitative findings from semi-structured interviews showed that several psychosocial team resilience qualities were enhanced, such as stronger communication channels, shared mental models, increased awareness of individual and collective responses under pressure, and emerging shared player leadership (Kegelaers et al., 2021). More recently, Tassi et al. (2023) applied a stressful constraints led approach to developing team resilience in youth football. The intervention was developed by 10 expert university professors and involved the delivery of four training sessions per week for four weeks using constraints to increase the mental load and stress within their sessions. These constraints included environmental and task demands, for example the coach taking away possession or removing a player. Through their quasi-experimental study, they found that the intervention increased participants' psychological skills whilst not impairing their resilience. Intriguingly, both studies adopted a pressure training/stressful constraints approach within a brief timeframe. When considering the findings of existing empirical studies of resilience interventions, it suggests that short interventions may not adequately capture increases in team resilience which involve shared experiences of stressors over time. Furthermore, longitudinal interventions during the course of a whole season or cycles of seasons might be necessary. In addition, Kegelaers et al. (2021) and Decroos et al. (2017) suggested that the

first sign in improving team resilience might be the reduction in vulnerabilities (e.g., breakdown in communication under pressure) prior to measuring increases in the characteristics of team resilience. Thus, it is possible that the questionnaire used in both studies (Characteristics of Resilience in Sports Teams Inventory; Decroos et al., 2017) is not sufficiently sensitive to detect changes within very brief timeframes. Lastly, Tassi et al. (2023) and Kegelaers et al. (2021) both concentrated on just one area of team resilience development and further focus on other psychosocial characteristics such as social capital may provide greater insights into team resilience interventions. Consequently, to observe greater results, longer term interventions that target other relational and psychosocial aspects of the team resilience construct (e.g., social capital) may be needed.

The limited evidence of team resilience intervention research in performance sport points us to widen our scope to other domains. Specifically, since Morgan et al.'s (2013) research, there has been notable interest in the construct of team resilience across diverse performance contexts including information technology (Sharma & Sharma, 2016), occupational and organizational settings (Hartwig et al., 2020; Raetze et al., 2021) and the military (Chapman et al., 2021). In the context of military, Chapman et al. (2022) co-developed their 'STOP then Resource' contextualised team resilience reflection tool with military personnel and conducted a pilot study to assess its feasibility and applicability to the context. The pilot intervention consisted of the completion of a reflection worksheet twice within an 18 hour overnight military training activity that comprised of seven unique performance stands. The questions in the worksheet related to five specific areas: a) stressor event, b) timing of event, c) overview of event, d) perceived impact, and e) resources (Chapman et al., 2022). In healthcare, Dubois et al. (2020) co-constructed their longitudinal team resilience intervention for health workers with relevant stakeholders. They proposed activities to build on the team's the ability to (a) monitor and anticipate hazardous situations



and to prepare for them; (b) respond to difficult, stressful situations when they arise; and (b) learn from difficult, stressful situations. For their empirical research, they planned a 24 month long longitudinal multiple case study approach, including a follow up period after 12 months. Whilst Chapman et al. (2022) and Dubois et al. (2020) are yet to conduct their empirical investigations, both used a comprehensive co-development of their resilience intervention rather than imposing a universally accepted program. Due to the psychosocial mechanisms and processes underlying team resilience, interventions that harness team member and stakeholder input present an appropriate platform for researchers.

Developing effective designs and capturing relevant features of psychological interventions is critical to advance conceptual and theoretical research. To guide researchers, a framework employing a co-design approach that underscores contextual relevance is Intervention Mapping (IM; Bartholomew et al., 1998). IM is an evidence-based and theory-informed step-by-step process for intervention development. Although primarily used in healthcare, researchers have recently begun to apply it to sport settings (see Mattie et al., 2020). Ensuring that the program addresses issues that are relevant to the target population, researchers are required to co-develop their intervention through a bottom-up approach (Teufel-Shone et al., 2006). In the present study, conducting a needs-assessment of team resilience provided a valuable insight into the context of high-performance women's football. Furthermore, the role of this guiding framework has significant potential for team resilience researchers.

Since team resilience intervention effectiveness relies on an assessment of the specific context in which stressors occur, it is critical to adopt an evidence-based pre-intervention exploration to inform its design. Therefore, the purpose of the present study is to conduct a pre-intervention needs assessment for team resilience development within the context of women's high-performance soccer. For a study of team resilience, the context was chosen

based on the following two considerations. First, the findings of Brown and Fletcher's (2017) meta-analysis revealed that "existing interventions have been developed, tested, and refined on male athletes more readily than on female athletes [...] resulting in the development of interventions that are effective for males, but not necessary females" (p.94). This gap offers an opportunity to explore team resilience intervention development within a sample of high-performance women's teams. Second, women's high-performance soccer has gone through an immense amount of development, causing significant challenges for players and staff members. Examples of such challenges include the incompatibility of motherhood and maternity in professional football with current policies (Culvin & Bowes, 2021), high expectations of professionalism whilst experiencing inadequate working conditions combined with uncertainty in a precarious workplace (Culvin, 2021) and a heightened risk and prevalence of injuries (Crossley et al., 2020). The complications of such a transition in high-performance female sport provide a distinctive rationale for the exploration of the ways teams process and overcome adversities. Specifically, the study will investigate the types of stressors within women's high-performance football; identify existing effective practices employed by teams to withstand stressors; and distinguish perceived gaps for effective team resilience intervention design. It is hoped that the findings will contribute to the development of a longitudinal, context-specific team resilience intervention and that the knowledge gained from this work will benefit researchers and key end-users (e.g., sport psychologists) alike.

## **2.2 Methods**

### **2.2.1 Research Design and Underpinning Philosophical Assumptions**

To gain a deep contextual understanding of team resilience, the study was informed by a critical realist perspective (Bhaskar, 1975). Critical realism is based on ontological realism meaning that "there is a state of the matter which is what it is, regardless of how we

do view it, choose to view it or are somehow manipulated into viewing it” (Archer, 2007, p.195). However, this reality is complex and multi layered, whereby the observable events are mediated by the unobservable. In addition, individuals’ experiences of such events may be interpreted differently (epistemological subjectivism), are socially constructed and context dependent. Thus, qualitative data was chosen as the most appropriate method of capturing their experiences. Applying this view, the study can illuminate the sociocultural context in which team resilience occurs, important to the study of resilience in psychology (Ungar, 2003). Critical realism advocates for methodological pluralism (Ryba et al., 2020; Wiltshire, 2018) hence the present study used a triangulation of methods (literature review, focus groups and expert steering groups) to achieve the research objectives.

In accordance with effective intervention development in psychology (van Agteren et al., 2021), the study was guided by IM principles and features. Specifically, drawing on IM, key aspects in this study involved conducting a needs assessment; establishing a steering group; and describing the context of the intervention (Bartholomew al., 2016). The needs assessment included a topical review of the literature on resilience interventions in high-performance contexts to inform the interview guide and focus group discussions with the target population. To triangulate these findings, a steering group was established. The group (n = 6) consisted of industry experts such as a representative from the sport’s National Governing Body (NGB), sport psychology researchers and sport psychology practitioners operating in the context of the studied sample.

### **2.2.2 Sampling and Participants**

For a study of team resilience, participants were purposively sampled to enhance the understanding of the specific context in which pressure occurs (Sparkes & Smith, 2014) based on two main considerations highlighted in the introduction. Following scoping meetings (e.g., to better understand the types of challenges in the sport; to explore the

benefits of a team resilience intervention for talent development) with senior personnel of the sport's NGB, it was decided that sampling teams across a national league system would offer a unique insight for a pre-intervention study. Braun and Clarke (2021b) suggested that dataset size can be calculated using information power, a concept developed by Malterud et al. (2016). This requires the researcher to reflect on their data to determine whether the sample holds adequate information to develop new knowledge for the aim of the study (Sim et al., 2018). As the study involved the examination of a specific context, smaller numbers of highly knowledgeable and experienced participants within this setting were judged sufficient to produce high levels of information power (Malterud et al., 2016).

Therefore, the final sample consisted of five teams; four competing in the top two national tiers from which three teams were professional with full-time contracts, one was semi-professional with part-time contract, and one academy team. Overall, 27 participants ( $M_{age} = 23.96$ ,  $SD = 4.49$ ) who had been members of their respective teams for an average of 2 years (5 months – 7 years) took part. Eleven either had played at international level or were currently representing their country demonstrating substantial experience at the elite level. The teams' major achievements included winning the league, promotion, becoming professional, and achieving 2nd and 5th place in their respective leagues. The focus groups included a diverse range of player positions including goalkeepers, strikers, captains, vice-captains, and defenders.

### **2.2.3 Procedure**

Following institutional ethical approval, further discussions and online meetings took place with senior personnel from the NGB to gain greater understanding of the broader national performance context, and the research project. All teams in the top two tiers were invited to participate through the NGB's weekly online bulletin where details of the research project were disseminated. The invitation included a 5-minute video presentation outlining

the requirements of the study along with an invitation letter. Upon teams expressing their interest to take part, a meeting was arranged with each team's senior representative to discuss the requirements of the project and to arrange a suitable date/time for data collection.

#### **2.2.4 Data Collection**

To conduct an extensive contextual assessment for team resilience development, in depth exploration of shared experiences with stressors was essential (Pranee, 2011). A number of researchers have reported on the effectiveness of focus groups to inform intervention development in group contexts (see e.g., Davies et al., 2013; Mattie et al., 2020; McEachan et al., 2008). In the present study, focus groups were employed to facilitate the collective construction of shared meanings and knowledge (Kook et al., 2019). This also enabled the researchers to become familiar with the language used by the participants, an important part of successful interventions (Watzlawick et al., 1974). Smaller groups (4-6) allow for greater in-depth conversations often leading to more relevant data (Krueger & Casey, 2009). Accordingly, the five focus groups comprised of 5-6 participants and were held face-to-face in a meeting room at each teams' training ground. Prior to data collection, the research project was explained with the opportunity to ask questions before signing an informed consent form.

A semi-structured focus group guide was developed by drawing on the findings of the literature review conducted as part of the needs assessment. Specifically, the literature review revealed that teams face distinct, contextual stressors that should be identified to assess and develop team resilience (cf. Chapman et al., 2021). For example, teams can encounter acute or chronic adversity (Alliger et al., 2015), which may or may not be uniformly experienced by every team member, but could be transmitted among them (Chapman et al., 2021). Furthermore, the literature review assessment showed that teams utilize behaviours and processes to prepare for, manage, and learn from stressors (Gucciardi et al., 2018; Hartwig et

al., 2020; Morgan et al., 2015). For example, team members can leverage each other's resources and effective leadership behaviours and conduct comprehensive debriefings following significant stressors. The literature review also confirmed that the development of these behaviours and processes is vital when designing effective team resilience interventions (Dubois et al., 2020). Subsequently, the focus groups interview guide was developed iteratively through five consecutive meetings (each lasting approximately an hour) with critical friends experienced in team resilience research, who encouraged continuous reflection. Finally, the interview guide design comprised three sections: the context of adversity; behaviours regarding preparing, managing and learning from stressors; and effective interventions (see supplementary materials). To assess the efficacy of the interview guide, a pilot interview was conducted with a semi-professional football team playing in the women's National League (tier 4) prior to data collection. This focus group gave the first author an opportunity to assess the way in which the target group perceived the questions, leading to the refinement of some questions and interview structure (Breen, 2006). The focus groups ranged in duration from 35 to 60 minutes ( $M = 53$ ,  $SD = 10$ ).

### **2.2.5 Data Analysis**

Audio recordings of the focus groups were transcribed verbatim, yielding 126 pages of single-spaced text. A six-phase reflexive thematic analysis (TA, Braun & Clarke, 2022) from a critical realist standpoint was undertaken to analyse the dataset. Most prominent for reflexive TA (Braun & Clarke, 2022), analysis through critical realism provides access to participants' perception of their reality shaped by their language and cultural context (Willig, 2013). For example, being "under the cosh" signified high pressure situations that a team collectively encountered. Following the transcribing of the interviews (Smith & Sparkes, 2016), the printed transcripts were read and re-read. Coding took place manually using highlighters and pens, moving back and forth between the data (Trainor & Bundon, 2021).

After the first round of coding, the dataset included 239 codes; once duplicates were removed, the coding process was completed with 158 codes (e.g., replicating games in trainings). Initial themes were generated by first typing up the codes along with their matching data extract to create a “master list of codes” (Trainor & Bundon, 2021, p.12) then moving them into clusters to represent themes. The researcher shifted to an electronic organisation of data, a separate document was created with the final themes (e.g., organisational stressors arising from a newly professionalised environment), subthemes (e.g., frequent changes to personnel), and matching data extracts to review, define and name the themes. The analysis continued through the write up as the authors engaged in continuous reflection using inductive and deductive reasoning considering the topical review of the literature.

#### **2.2.6 Methodological Rigor and Integrity**

Throughout the development of the interview guide and the analysis of the data, rigor and quality were enhanced via ‘critical friends’, whereby the lead researcher shared, and received feedback on their interpretations with four collaborators, all of whom had conducted research on team resilience (cf. Smith & McGannon, 2018). A critical friend’s role is to provide an alternate approach of thought, encourage critical reflection of ideas, and challenge one’s construction of knowledge concerning the data, how it is being analysed, and the conclusions that come from it (Smith & McGannon, 2018). From a critical realist standpoint, the aim was to provide a compelling interpretation of the data (Braun & Clarke, 2021a, 2022). In addition to the use of critical friends, the steering group of expert practitioners met to consider the interpretation of the initial findings (Levitt et al., 2017). Within IM, the role of the steering group is to generate ideas, make decisions and choose goals from the most accessible information and experience of the members (Bartholomew Eldridge et al., 2016). Thus, themes were introduced to the steering group and an in-depth discussion was facilitated

by the moderator (the first author). This allowed for “various conceptions and understandings of reality” (Natow, 2020, p.163) to be shared amongst the group. Employing such approaches can strengthen methodological rigor (Cohen et al., 2000) by using multiple methodological practices and triangulation can help explain complex human behavior (Noble & Heale, 2019).

## **2.3 Results**

The results portray the researchers’ interpretations of the participants’ experiences of contextual stressors they collectively encounter, existing team resilience practices, and team members’ perceptions of gaps for team resilience intervention development (see Table 1). Participants’ responses are presented as a combination of data extracts (direct quotations) and analytic narrative (interpretation of the data and their meaning) (Braun & Clarke, 2022).



**Table 1 - Findings of a Team Resilience Pre-Intervention Needs Assessment**

Domain	Higher-order theme	Lower-order theme
Contextual stressors	Organisational stressors arising from a newly professionalised environment	Adapting to a full-time professional environment Insufficient resources Frequent changes to personnel
	On-pitch stressors arising from low social resources	Sub-optimal collective problem-solving during pressurised situations Poor team-level management of collective emotions during setbacks Significant loss/es
Effective team resilience practices	Establishing a strong foundation for high quality relationships Unity in managing pressure	Informal relationship building Formal team building tasks Teammates emotional support during adversity Understanding teammates individual responses to stressors Collective drive to perform
	Learning from setbacks to inform future preparation for adversity	Staff led analysis identifying strengths and weaknesses Tactical preparation on and off the field Communication
Perceived gaps in team resilience development	Limited effectiveness and inconsistent use of deliberate pressure training	Complacency towards preparation when in positive momentum Effective team responses developed off-pitch lack transferability Need for team resilience training to become part of the natural cycle
	Inadequate psycho-social resources  Lack of effective proactive group level strategies during pressure	Confidential support for the team to process setbacks Individual 1-2-1 support to develop psychological skills Absence of knowledge around emotional contagion Improving knowledge exchange during a game Developing regrouping practices for on pitch challenges Strengthening player leadership skill

### **2.3.1 Contextual Stressors**

Through thematic analysis, 24 codes were identified in relation to contextual stressors faced by teams. These codes were arranged into six lower-order themes comprising two higher-order themes: organisational stressors arising from a newly professionalised environment and on-pitch stressors arising from low social resources.

#### ***Organisational Stressors Arising From a Newly Professionalised Environment***

These stressors relate to challenges that participants identified to be resulting from the environments that they operate in. These include: adapting to a full-time professional environment; insufficient resources; and frequent changes to personnel. Participants frequently expressed that the transition to full-time environments was a persistent and significant challenge. For instance, team members reported that the interpersonal dynamics between staff and players were often complex because some players had experienced a professional full-time environment in previous clubs (in tier 1), whereas some coaching staff had not (in tier 2). This unusual combination of mixed high-performance experiences within teams meant that the transition to full-time environments represented a “big leap” and that the relative inexperience of coaches in a newly professionalized sport created significant additional pressures, illustrated by one team member: “you kind of had to step up a little bit more to almost help the staff a bit”.

In addition, there was a heightened expectation for the players to behave professionally, yet the conditions that were required for thriving were not adequate. For example, players noted that “we've had sessions where we've had to cut it out [the training session] because they've turned the lights off on us” or “we've had sessions where we've been chucked on the grass and the grass was waterlogged and frozen on top”. Teams reported that professional female players received differential treatment than their professional male counterparts based on their sex. These experiences were described as deeply rooted within

players' development and progression during many years, and there was strong frustration about professionalisation not leading to positive change as illustrated by one team member:

Because we're women playing football, we have to deal with the tiny little crumbs that we get given. Facilities, opportunities, availability [of resources], we just deal with it, because we've all played football most of our lives, we're just used to it. We are used to getting the breadcrumbs, used to getting the bare minimum, so we just get on with it.

Team members reflected on the persistent challenge of starting each new season with a high turnover of players. To demonstrate, one team member stated that "there are only five players that were at this team last year". They further noted that, "players [typically] come and go in this league", making it particularly challenging to develop a passion for "the badge". Frequent changes to the coaching staff were also underscored by participants as having a significant negative effect on the whole team. One of the participating teams described the process of a mid-season managerial change as being akin to "grief", where the environment is "never going to be the same again". Team members reflected on consequential challenge of having to perform despite going through substantial adversity.

### ***On-Pitch Stressors Arising From Low Social Resources***

In the context of women's high-performance football, the present study's findings identified that teams face on-pitch stressors that can affect their team performance. These include: sub-optimal collective problem-solving during pressurised situations, poor team-level management of collective emotions during setbacks; significant loss/es. During pressure, teams commented that they struggled to deal with the opposition's tactical, technical, and mental strategies. For example, one team member reported that their opponents were "kicking us, getting in our faces, and we didn't know really how to deal with it". Another team member spoke about not being able to adapt in the moment, or to the changes

in game strategies employed by an opponent and stated that “we struggle in the moment to adapt and find a solution”.

Participants described the challenges arising from poor management of collective emotions. For instance, one team member commented that they often “lost sight of their team’s objective”, and that frequently planned strategies “go out the window” because the emotions are so high which adversely impacted on their performance. Participants referred to moments of adversity and pressure such as losing a key player to injury during a game, which in turn heightened negative emotions across the team. A failure to effectively manage collective emotions during such incidents was regarded as a specific stressor during competition.

Another team member noted the particular challenge of handling a significant loss, especially getting a disappointing result to a team based faraway “it’s a very long way to travel to lose”. They described how frustration built up significantly following certain losses, with team members getting increasingly annoyed with each other affecting team morale which lingered until the team’s next win. Participants also discussed the impact of a performance slump such as “losing four games in a row”, and how they feared relegation. This was illustrated by one team member who described the specific fear of relegation:

I think the sort of pressure of us being at the bottom, or near the bottom of the table [affect us] as we know that every game that we play, we must try and get something out of it ... So obviously playing in the [league] has that sort of pressure and obviously if you're not performing and you're creeping down [the table] the punishment is getting relegated.

### **2.3.2 Effective Team Resilience Practices**

The focus group interviews yielded 40 codes regarding existing effective team resilience practices utilised by teams in their performance environment. These codes were

grouped into eight lower-order themes, making up three higher-order themes: establishing a strong foundation for high quality relationships; unity in managing pressure; and learning from setbacks to inform future preparation for adversity.

### ***Establishing a Strong Foundation for High Quality Relationships***

To effectively withstand pressurised scenarios, team members reflected on the importance of establishing high-quality relationship. More specifically the strategies used to achieve it included informal relationship building; and formal team building tasks.

Participants stated that to manage stressors effectively it was important to get to know and understand each other in a variety of different contexts and situations. One team member stated that strong foundations for high quality relationships were partly about “getting to know people and their backgrounds and learning about where they’ve come from”. This helped develop an emotional connection amongst team members by appreciating each other’s journeys in life. Participants noted that developing high quality relationships were harnessed on the pitch during moments of pressure. They also emphasised that there needed to be mutual agreement to continuously build on the foundation for quality relationships.

Team resilience practices also included formal team building activities during pre-season, away days, or by dedicating separate time each week. Typical activities in pre-season or away-days varied from going on a “high ropes course”, to “singing”, all bringing out different sides of individual players’ personalities which became important for collective functioning during pressure. The weekly dedicated practices included using “coffee mornings” and “fun Fridays” to create time where team members engage in non-football related activities such as puzzles. Participants reported that these activities helped develop effective communication styles and enhanced the collective mood, which transferred to their training sessions or their game performances as one team member reported below:

I feel like a lot of what we focus on is the off the pitch stuff [relationship building] that helps then how we discuss stuff on the pitch. We're trying to learn how to get the best out of each other [under pressure] in the way that we communicate ... we've been doing a lot so that we get better at trying to talk on the pitch to get the best out of people.

### ***Unity in Managing Pressure***

Team members identified the importance of behaviours and attitudes relating to team unity to effectively manage pressurised scenarios. Examples of effective practices included: teammates emotional support during adversity; understanding teammates' individual responses to stressors; and collective drive to perform. Participants particularly emphasised the role of providing emotional support to each other during stressors both on and off the field. For instance, following a period of significant managerial change, one player noted that, "I think the only person or people that we had to really look to in those moments were each other". Unity in managing pressure was also created by forming an understanding of others' personal lives outside soccer. For instance, when a teammate was going through hardship outside of the pitch, teammates came together to provide emotional support as reported by one of the participants: "you just need to take care of that one a bit more and not leave them like dwelling on whatever the problem is". During on-pitch challenges, emotional support manifested itself through for instance "eye contact" to reassure teammates because "some team members just needed to know that it's all right".

In addition to emotional support, there was a general recognition from all teams that each player is a unique individual, and that each of them will react differently to pressurised moments. Participants noted that team members needed to develop an understanding of what type of support each person needs so that such knowledge can be utilized, and appropriate support can be provided to their teammates when faced with an on-pitch stressor:

In a game there's like certain people that will need certain types of people, some people might need somebody that's gonna tell them how it is, some might need a motivator they might just need a few words of encouragement to get them going again. The little things that if you know your teammates around you, you're gonna know how to help them.

During on and off field adversity, participants noted that they “stuck together” to overcome the challenges they were facing, demonstrating a collective drive to perform. Participants also commented that a sense of unity to withstand stressors was created by the whole team performing well together and by having a collective belief. One player explained this and commented that “I think everyone that day had the belief that we could do it” by working hard, and where “everyone put the extra yard in”.

### ***Learning From Setbacks to Inform Future Preparation for Adversity***

The findings of the present study also showed that effective team resilience practices were related to ongoing processes based on learning from setbacks. Three lower-order themes illuminated this theme: staff-led analysis identifying strengths and weaknesses; tactical preparation on and off the field; and communication. Team members reported that the use of review meetings led by members of the coaching staff were helpful to prepare for any foreseeable challenges by analysing stressors that they collectively encountered. Participants commented that they felt ‘safe’ in these meetings, and that this supportive environment created an individual and collective learning opportunity to effectively manage stressors in the future illustrated by one team member:

Well, every game is filmed. So, coaches help you to go through it yourself and get different clips [of difficult situations]. And then they show us back and tell us what we should have done or what we've done well. So, we can learn from the mistakes and then see what we are doing well so we can carry on doing that. Because it's not

just like them telling us what we did wrong, we can see it, so it just helps us to get the pictures of what we need to be doing in our head.

Tactical preparation on the pitch included working on collective responses to stressors. Participants discussed the importance of having a supportive environment out on the pitch too “where everyone feels like they have the power and confidence to speak up and change something”. Team members described that these sessions increased players’ understandings of ‘what-if’ scenarios which promoted deeper learning about pressurised situations.

Learning from setbacks was also emphasised via communication amongst team members. Participants discussed the importance of frequent communication as a way of managing stressors and all teams stated that “communication is such a big thing as . . . it’s probably the main way we get through patches” and talking it out.

### **2.3.3 Perceived Gaps in Team Resilience Development**

The present study sought to identify the discrepancy between ‘what is’ (i.e., team resilience strategies currently implemented) and ‘what could/should be’ (i.e., evidence-based practices found in the literature). The thematic analysis identified 59 codes in relation to perceived gaps in team resilience development in high performance women’s soccer. Codes were clustered into 10 lower-order themes, making up three higher-order themes: limited effectiveness and inconsistent use of deliberate pressure training; inadequate psychosocial resources; and lack of effective proactive group level strategies during pressure.

#### ***Limited Effectiveness and Inconsistent use of Deliberate Pressure Training***

Team members reported inconsistent behaviours and attitude shifts towards their preparation and their team resilience practices. These included: complacency towards preparation when in positive momentum; effective team responses developed off-pitch lack transferability; and need for team resilience training to become part of the natural cycle.



Participants explained that there were often attitude shifts and growing complacency in the consistency of their training for stressors when the team gained momentum. Teams often tended to take the opposition “for granted” and frequently the focus was only on preparing to win, as opposed to preparing for “foreseeable challenges”. Players identified that there was an opportunity to develop team resilience on pitch for example by replicating games that included adverse situations to develop team knowledge around ‘what works when’. One team member illustrated how this current gap might be approached:

We could play the same minutes as for this game that we played, for example, it’s 70 minutes, and we’re two-nil down, you’ve got 20 minutes to go and get two goals to save the game. What are you going to do as a team to sort of encourage conversation, how you’d set up [tactically], and what we want from the coaching staff. Express yourself with no fear as well. Obviously, situation and scenario based, even losing a player you can sort of mirror those situations in training.

Whilst only three out of the five teams had access to a sport psychologist, those who did reflected on the need for coaches and sport psychologists to work more closely. Team members discussed that there was often a lack of transferability between what they had done in (sport psychology) workshops to the actual performance environment. In addition, participants highlighted that not everyone learns the same way, some might benefit more from ‘classroom based’ exercises whereas others more from practical tasks on pitch, thus calling for a blended team resilience training programme.

Team members also identified that developing their team’s resilience should become part of a natural, continuous cycle of training and performance. For example, using it as a focus point during one of the training sessions in the week where they deliberately practice pressurized scenarios. According to the participants, if they included such practices in their

weekly schedules, then it could result in a more natural collective response during on-pitch adversities since everyone would be aware of the strategies to withstand the pressure.

### ***Inadequate Psychosocial Resources***

Team members described the desire for additional resources and the potential benefits of the identified psychosocial support types. These included: the call for confidential support to process setbacks; and for individual 1-2-1 support to develop psychological skills. Participants expressed the need for someone separate from the coaching staff to provide appropriate support when experiencing significant adversity. For example, team members identified weekly confidential team meetings as a new opportunity, to create space for sharing to process setbacks more adequately. Participants also recognised that whilst they would not want coaches to be in these discussions, there should be a shared agreement between team members on certain points to be fed back to the coaches. Furthermore, participants suggested that breaking into smaller groups might result in better quality discussions when reviewing difficult situations and stressors. The concern about not having a sports psychologist involved in team resilience training was highlighted by one team member below:

I think if it's not a psychologist [to discuss difficult situations], it would probably make it more difficult to have a different staff member in there because I think people are much less likely to be honest if there is a member of staff having these discussions. And let's say, I wanted to be really open with player x, I wouldn't feel like I would be digging them out. And I would never want to do that to a player. So I wouldn't ever want staff in there I think, just a psychologist.

Participants also noted the need for further personal one-to-one support to develop effective psychological skills to withstand stressors “so it's like having the right tools or the right mindset that works for you”. Team members commented that “you gotta be able to try

and sort your own emotions out first” as that would allow the players to better support the wider team during pressurised moments. In addition, participants suggested that group-based workshops must also consider individual differences “rather than thinking of us as a whole”.

### ***Lack of Effective Proactive Group Level Strategies During Pressure***

Participants identified a variety of existing ineffective practices during pressure that could be enhanced including the absence of knowledge around emotional contagion; improving knowledge exchange during a game; developing regrouping practices for on pitch challenges; and strengthening player leadership skills. Regarding emotional contagion, players acknowledged the potential for reciprocal transmission of both positive and negative emotions. Team members specifically highlighted the potential for encouragement, leadership, and confidence to generate a positive "domino effect" that facilitates optimal individual emotional states during pressure. However, they also noted that a similar effect could be observed for “panic”, “worry”, and “anxiety”, which on multiple occasions influenced the team’s performance negatively. This was not only the case between players themselves but also between staff and players as two of the participating teams explained:

(1) Whatever energy they [the coaches] are giving off, we sort of replicate it on the pitch. So, if they’re just being really quiet and not really saying anything, we’re a bit slower and more unfocused, I think.

(2) Some of the staff go silent, but sometimes it’s the complete opposite. And they panic, and then that injects onto us, and we are panicking when actually we just need to relax, calm down and regroup.

Participants highlighted that during moments of pressure they also need to ensure that knowledge transfer takes place by having clear lines of communication (e.g., “one person leading it”) to make better tactical decisions. One team member noted that “say, all the staff

and maybe like some players recognise it [what needs to happen], they tell that one person, to communicate to everyone”.

Team members recognised that it was important as a collective to regroup and reset following on-pitch challenges (e.g., conceding a goal) where “we need to be able to like pause, reset, like, regroup, and then face it [the stressor]”. Where there was not a natural pause in play, resets were created by the goalkeeper going down to stop the play. Team members noted that when they did, on occasion, employ such a “reset”, they were able to think logically, made better decisions and worked together as a group more effectively in high-pressure performances. Therefore, having such a strategy in place where the team can get together and regroup was regarded vital by the participants in overcoming stressors.

Teams highlighted the benefits of their existing leadership group to the general team environment; however, a notable gap was recognised in its application during stressors by the respective leaders originating from the absence of selection criteria and lack of training. One team member commented that “I was made vice-captain mainly just because I’ve been at the club for a long time” and not due to their leadership skills. Another younger leader noted that “I sometimes struggle to feel that I can call people out or like tell people off who are more experienced and older than me”, indicating the need for leadership skills training.

## **2.4 Discussion**

The aim of the study was to conduct a contextual needs assessment for team resilience development within the context of high-performance women’s football. Using IM as a guiding framework, this systematic needs assessment identified the contextual stressors high performance women’s football teams encounter (i.e., organisational stressors arising from a newly professionalised environment and on-pitch stressors arising from low social resources), effective team resilience practices currently employed by group members (i.e., establishing a strong foundation for high quality relationships; unity in managing pressure; and learning

from setbacks to inform future preparation for adversity) and the perceived gaps for team resilience development (i.e., limited effectiveness and inconsistent use of deliberate pressure training; inadequate psycho-social resources; lack of effective proactive group level strategies during pressure).

The literature review assessment identified that a context-specific exploration of stressors was an essential first step for a pre-intervention study to address the critical question of ‘resilience to what’ (Chapman et al., 2021). The contextual stressors (organisational stressors arising from a newly professionalised environment and on-pitch stressors arising from low social resources) faced by the sample teams revealed many nuances specific to the newly professionalised sport of women’s football. For instance, our findings demonstrated that participants found the high turnover of team members particularly challenging as they often struggled to integrate new members and develop a distinctive team identity. The importance of social structures has previously been highlighted by team resilience researchers (Fasey et al., 2021; Gucciardi et al., 2018; Hartwig et al., 2020; Morgan et al., 2013); however, in this context, our findings show the specific need for such structures to be emphasized repeatedly during a season.

The findings of the present study provide a unique insight into the context specific team resilience practices utilised in high-performance women’s soccer, namely: establishing a strong foundation for high quality relationships; unity in managing pressure; and learning from setbacks to inform future preparation for adversity. The importance of developing high quality relationships and providing support to each other was evident in the ways teams prepared for and managed stressors. This might be explained by the sex differences found in friendships as women prioritized emotional support (Williams et al., 2022), and sex differences found in relation to empathy, as the female brain showed stronger empathic response at the sight of the others’ pain (Proverbio, 2023). Thus, when a player experiences a

sudden injury during a match, team members might need to draw on a wide range of resources to keep up the team's performance.

The findings demonstrate that learning is vital in overcoming setbacks within the context of women's football. However, this study highlighted the specific role of tactical debriefs and analysis as they offer ways to "see the pictures" and develop shared responses to stressors. The findings of the present study can be explained by the need for teams to foster an environment where debriefs are part of the culture can help reinforce shared mental models. Hartwig et al. (2020) suggested that team learning facilitates more accurate team mental models and increased awareness of effective and ineffective adversity responses. Furthermore, the present study suggests that although learning takes place within the boundaries of meetings led by coaches, there is a need for separate team meetings led by a sport psychologist or other 'external' support roles to discuss setbacks. This provides opportunities for feelings to be shared in a 'safe space', increasing psychological safety, ultimately positively impacting on team resilience (Fransen, McEwan, et al., 2020).

In addition to psychological support at the team-level, participants recognized that they would benefit from individual psychological support to develop their own personal resilience and psychological skills. The literature review revealed that the importance of individual resources to team resilience has been widely recognised by team resilience researchers (Gucciardi et al., 2018; Hartwig et al., 2020; Morgan et al., 2013). Though a team of 'resilient' individuals does not necessarily lead to a 'resilient' team (McEwen & Boyd, 2018; Morgan et al., 2013) team members must be able to draw on individual and collective resources to withstand pressure. The present study adds to the literature by capturing a specific recognition of end-users' requests for more individual support directly in relation to their team's resilience. These findings reinforce the requirement for multi-level development when planning team resilience interventions.

The results suggested that team members were acutely aware of the negative effects of inadequate management of their emotions during pressurized moments and how these often transferred to each other bearing significant consequences to team performance. These findings can be explained by the construct of emotional contagion which is defined as the “process by which a person or group influences the emotions or behavior of another person or group through the conscious and unconscious induction of emotion states and behavioral attitudes” (Schoenewolf, 1990, p.50). Investigations in performance sport contexts supported its prevalence specifically in cricket (Totterdell, 2000) and in football (Rumbold et al., 2022). In addition, research shows that women might be more susceptible for emotional contagion (Rochat, 2023), than men. To increase a team’s ability to effectively manage stressors, team members can facilitate the transfer of positive emotions among each other through athlete leaders, leading to increased confidence and belief (Clarkson et al., 2017; Cotterill et al., 2020; Morgan et al., 2019). For instance, during moments of pressure selected athlete leaders can positively steer emotions on the pitch by encouraging, motivating, and helping the team to retain a focus on their individual and shared goals. This in turn would positively influence several team resilience characteristics and processes.

The present study also found that when teams enter a ‘winning streak’ or gain ‘positive momentum’, they fall behind in the consistency of preparation for stressors. This could be explained by findings in the area of teamwork. For example, when teams become overconfident, complacency can be experienced (Mach et al., 2022). This can ultimately affect the team’s performance negatively through poor communication (McEwan & Crawford, 2022). In this context, our findings indicate the specific gap for a team resilience intervention to target continuous preparation for stressors. This may positively impact performance by enhancing collective problem-solving skills during pressure. To successfully embed continuous preparation for stressors, our study found that ‘classroom’ sport

psychology workshops should be contextualised to on-pitch dynamics with the collaboration of coaches. Interestingly, Brown and Fletcher (2017) found, that psychosocial interventions are most effective when working with and through coaches.

Coaches and sport psychologists might also benefit from working closely with the appropriate formation of shared player leadership. More specifically, the present study found that whilst team members viewed collective leadership as a key component of team resilience (Kegelaers et al., 2020; Morgan et al., 2019), leaders were not selected based on empirical guidance (e.g., The 5R Shared Leadership Program, Fransen, Haslam, et al., 2020; Mertens et al., 2020). This oversight has resulted in players lacking the necessary skills to lead their team and execute important team resilience strategies noted by participants such as ‘resetting’ on pitch following pressure (e.g., conceding a goal). Though several tactics were identified for resetting such as the ‘goalkeeper going down’, however, players must be able to recognise the scenario (i.e., from simulation-training) and possess the required leadership skills to regroup and reset. Particularly, as when athletes perceive higher levels of player leadership quality within their respective teams, they also score higher on team resilience (López-Gajardo et al., 2022).

#### **2.4.1 Strengths and Limitations**

A notable strength of the present study was the application of IM as an overarching guiding framework. Utilizing IM approaches provided a relevant methodological underpinning to achieve a rich exploration of a specific context which is necessary for team resilience intervention development (cf. Chapman et al., 2020). Another significant strength of the study was the novel research into women’s high-performance sport. This sample is significantly underrepresented in intervention studies in the field of sport psychology which resulted in the development of psychosocial interventions that are less affective for this



population (Brown & Fletcher, 2017). Given the rate of women's football's progression, it is essential that empirical research takes place to support its development.

The limitations of the present study included a particular focus on players perspectives. However, the role of the expert steering group also attempted to capture the insights and experiences of coaches, administrators and sport psychologists operating in the women's game. Notwithstanding this, gaining insights from coaches (see Kegelaers et al., 2020) and support staff members from the sample of teams would have provided an even richer vantage point into the perceived pre-intervention assessment needs. Another limitation included one-off focus group interviews at a particular point in time. It is possible that multiple discussions at different time points would have provided a deeper understanding of strategies utilised at different time-points within the season.

#### **2.4.2 Future Research Directions**

There are several research avenues that could further benefit team resilience practices in sport. Firstly, participants identified that they would benefit from more psychological support; thus, studies could explore the reasons as to why such support has not been available and the potential barriers that exist within this context. Another key area of future research is to draw on psychosocial pre-intervention assessments to form the basis of a longitudinal team resilience intervention. At present, there is a significant gap with only two brief empirical team resilience interventions in sport. Furthermore, when conducting interventions, researchers should recognize the benefits of conducting detailed process evaluations to supplement the analysis of a team resilience training program (see Randall et al., 2019). Such process evaluations may capture the perspectives of participants during specific stressors and help make sense of why specific team resilience contributed to withstanding pressure.

### 2.4.3 Applied Implications

The findings provide several important practical implications for sport coaches, sport psychology practitioners and those working in women's football. The study highlighted the importance of an effective needs assessment prior to undertaking an intervention as several nuances specific to the studied context were identified. For example, to overcome the challenges resulting from the high turnover of staff and players, practitioners need to be mindful of integrating new members into the team with a particular attention to team values. In addition, due to the significance placed on forming relationships and the role that emotional support plays in managing adversity, coaches should allow time for team building activities *throughout* the season as this would also allow for the integration of new team members. Appropriate pressure training should be incorporated into the players weekly schedules to develop effective collective responses to stressors (see Kegelaers et al., 2021) to overcome the challenges resulting from sub-optimal collective solving and poor team-level management of collective emotions. Typical strategies noted in this study included replicating previous games, practising regrouping, and rehearsing lines of communication under pressure. However, the findings also showed that it is important that these practices are maintained during periods of positive momentum. Greater collaboration between sport psychology practitioners and coaches is needed to deepen off-pitch knowledge (e.g., collective responses to stressors) and to practice during simulation training (see Wylleman, 2019). This could be enhanced via for instance the practitioner's physical presence during training sessions, and or being an active part of multidisciplinary team meetings. Lastly, when utilizing leadership groups to help protect teams from the potential negative consequences of stressors, practitioners should carefully select player leaders (see Fransen, Haslam, et al., 2020) and there should be specific consideration for developing their leadership skills.

The findings of the present study point to guidance for practitioners wishing to design, develop, and implement team resilience interventions within the context of women's high-performance football. Firstly, those working with teams might adopt a co-development approach (e.g., Chapman et al., 2022; Dubois et al., 2020). This could be achieved by harnessing the knowledge and experiences of key stakeholders such as managers and those in leadership roles (e.g., team captain) to ensure that the specific team resilience content (e.g., team building activities) aligns with the team's vision, their stage of the team's development, the specific environment, participants' psychosocial needs as well as their training program. In turn, this could lead to greater levels of 'buy-in' (O'Cathain et al., 2019; Ramage et al., 2022), which will likely increase the effectiveness of an intervention (Ely et al., 2021). The specific stressors arising from the professionalisation of sport highlighted in this study also point to the development of coach education programs or mentoring schemes (Dempsey et al., 2021; Sawiuk et al., 2018). Such programs would equip coaches with the knowledge and skills necessary for preparing, and managing significant challenges. In addition, mentoring schemes could offer coaches another source of support in adjusting to a newly professionalised environment.

#### **2.4.4 Conclusion**

To conclude, the present study explored context specific stressors, effective practices, and gaps in team resilience development within high-performance women's football. A contextual needs assessment was conducted within an intervention-mapping framework which included insights from an expert steering group. The findings of the present study showed that high-performance women's football teams encounter a range of organisational stressors arising from a newly professionalised environment and on-pitch stressors arising from low social resources. In addition, several practices were identified that teams currently utilize to develop their teams' resilience such as establishing a strong foundation for high

quality relationships; unity in managing pressure; and learning from setbacks to inform future preparation for adversity. The study also identified important gaps in teams' existing team resilience practices including: limited effectiveness and inconsistent use of deliberate pressure training; inadequate psychosocial resources; and lack of effective proactive group level strategies during pressure. In summary, the study highlighted the critical need to appreciate the dynamic and complex nature of team resilience in the specific context in which it occurs. This paper provides the foundation for intervention development in the context of high-performance women's sport.

# **Chapter Three: Co-producing, Implementing and Evaluating a Season-Long Team Resilience Intervention Within Professional Women's Football**

The first empirical study presented in this thesis, described in chapter two, focused on a pre-intervention needs assessment for team resilience intervention development within the context of high-performance women's football. Specifically, the study explored the contextual stressors faced by high-performance women's football teams. These included organisational stressors arising from a newly professionalised environment and on-pitch stressors arising from low social resources. Additionally, the study identified the effective practices employed by team members to foster team resilience. These practices encompassed establishing a strong foundation for high quality relationships, unity in managing pressure, and learning from setbacks to inform future preparation for adversity. Lastly, the study identified the team members' individual and collective perceived gaps for team resilience development. These included limited effectiveness and inconsistent use of deliberate pressure training, inadequate psychosocial resources, and lack of effective proactive group level strategies during pressure. Building upon the findings from chapter two, chapter three illustrates the co-production, implementation, and evaluation of a multi-level, season-long psychosocial team resilience intervention with a professional women's football team.

## **3.1 Introduction**

The pursuit of maintaining consistently high performance in the face of stressors and adversity is a prevalent objective for many sport teams and organisations worldwide. The study of psychological resilience explores the way in which teams can achieve that. In the performance sport context, the definition of team resilience put forth by Morgan et al. (2013)

is widely adopted by scholars (Decroos et al., 2017; Fasey et al., 2021; López-Gajardo, McEwan, Pulido, Díaz-García, & Leo, 2022; Sarkar & Page, 2022; Tassi et al., 2023). According to their definition, team resilience is described as "a dynamic, psychosocial process which protects a group of individuals from the potential negative effect of stressors they collectively encounter. It comprises of processes whereby team members use their individual and collective resources to positively adapt when experiencing adversity." (p. 552). Thus, as opposed to a fixed trait, team resilience is a malleable psychosocial construct that can be developed over time (Sarkar & Page, 2022).

Through qualitative investigations, Morgan et al. (2013) found that sports teams that adopt *mastery approaches* (i.e., a shared attitude and behaviours that prioritise team improvement), develop *social capital* (i.e., high quality interactions and caring relationships), establish *group structure* (i.e., the conventions that shape group norms and roles, involving both psychosocial and physical aspects), and possess *collective efficacy* (i.e., shared belief within the group about their ability to perform a task) are effective in managing and overcoming adversity. To cultivate a resilient team, five psychosocial processes were identified: (1) transformational leadership, (2) shared leadership, (3) team learning, (4) social identity, and (5) positive emotions (Morgan et al., 2015). Based on these findings, a team's resilience may be augmented through targeted strategies. For example, to foster mastery approaches, team learning (Alliger et al., 2015; Chapman et al., 2022) can be enhanced through the implementation of away-days and after-action reviews (Sarkar & Page, 2022), thereby strengthening team resilience.

Since these early qualitative explorations into team resilience in sports, quantitative studies with large samples of participants provided evidence to support these associations. More specifically, the study conducted by López-Gajardo, García-Calvo, González-Ponce, Díaz-García, et al. (2022) found a positive association between collective efficacy and team

cohesion with team resilience. The researchers highlighted that team cohesion acts as a trigger for team resilience. Higher levels of team commitment, a lower-order theme within Morgan et al.'s (2013) collective efficacy, was found to be associated with higher perceived levels of team resilience (López-Gajardo, García-Calvo, González-Ponce, Cantú-Berrueto, et al., 2022). Additionally, the study revealed that lower levels of intra-group conflict was linked to higher levels of team resilience as reported by the players (López-Gajardo, García-Calvo, González-Ponce, Cantú-Berrueto, et al., 2022). Moreover, Yang et al. (2020) conducted a study among 659 Chinese athletes aged 16-34, consisting of 355 males and 304 females, predominantly participating in team sports such as basketball, football, volleyball, rugby, water polo, and handball. The study found a significant correlation between team resilience and the basic psychological needs of autonomy, competence, and relatedness (Self-Determination Theory, Ryan & Deci, 2000). Consequently, team resilience may be improved by satisfying athletes' basic psychological needs. Lastly, Fransen, McEwan, et al. (2020) found a positive relationship between team identification and teamwork, which in turn was positively associated with greater team resilience. Therefore, cultivating a sense of team identity (i.e., 'we' and 'us') appears vital for team resilience. These findings provide valuable insights for practitioners and researchers seeking to develop team resilience within their respective teams.

Recent research conducted by López-Gajardo, McEwan, et al. (2022) and also by Sarkar and Page (2022) demonstrated that developing a team's resilience can lead to several positive outcomes. For example, López-Gajardo, McEwan, et al. (2022) conducted a multi-level analysis on 676 Spanish football players over the course of a competitive season. The findings revealed that teams with higher resilience scores experienced also noted their individual and team performance to be more successful. Conversely, teams that exhibited more vulnerabilities under pressure perceived poorer team performance. Furthermore, Sarkar

and Page's (2022) gathered feedback from coaches, support staff (such as sport psychology practitioners), and technical directors through an online survey (n = 50) and interviews (n = 11) to evaluate the impact of their resilience research. This impact evaluation found that implementing team resilience practices not only enhanced performance but also improved the mental well-being of the teams. Thus, enhancing a team's ability to effectively manage and overcome stressors can be considered essential, as these practices can increase both their sport performance and mental well-being.

Whilst there is a growing body of research exploring team resilience in both sporting and non-sporting contexts, most of the existing findings come from cross-sectional studies. This is a notable limitation because team resilience is conceptualised (Hartwig et al., 2020; Morgan et al., 2013) and accepted (Decroos et al., 2017; Fasey et al., 2021; López-Gajardo, McEwan, Pulido, Díaz-García, & Leo, 2022; Sarkar & Page, 2022; Tassi et al., 2023) as a dynamic construct by researchers. Thus, there is a need for more research conducted over a longer period of time to determine the extent to which team resilience is malleable. Indeed, researchers in this field called for longitudinal designs with multiple time-point measurements to assess temporal changes in the ways in which teams handle stressors (Chapman et al., 2020; Gorgulu et al., 2018; Hartwig et al., 2020; Kegelaers et al., 2021; López-Gajardo, McEwan, Pulido, Díaz-García, & Leo, 2022). Such investigations would provide a better understanding of the varying effects of adversities on team functioning and shed light on a team's trajectory following adversity exposure (Gucciardi et al., 2018; Morgan et al., 2019). In this regard, four trajectories were identified that a team could follow upon experiencing adversity: (a) withstand or resist the impact of adversity with minimal or no effect on functioning; (b) bounce back to their normal level of functioning after a significant decline; (c) gradually recover their functioning over time (Chapman et al., 2020; Gucciardi et al., 2018); or (d) experience post-adversity team growth, whereby the team's



functioning improves following adversity exposure (Hartwig et al., 2020). Therefore, assessing team resilience at a single time point would not provide an accurate representation of how a team copes with adversity over time. Thus, a longitudinal approach with multiple time-point measurements would be a more appropriate method for assessing team resilience.

In addition to merely observing longitudinal changes in team resilience, researchers also called for the development, implementation, and evaluation of team resilience interventions to advance the field (Kegelaers, Wylleman, et al., 2021; Morgan et al., 2019). Psychological interventions are defined as "any actions or processes that alter functioning and/or performance through changes in an individual's thought and behaviour, through social factors, or through a combination of both individual thought and behaviour and social factors, respectively" (Brown & Fletcher, 2017, p. 78). To date, only two intervention studies have been published that specifically aimed to enhance team resilience in the context of sports.

Firstly, Kegelaers et al. (2021) conducted a 3-week pressure training intervention with an elite level female basketball academy in co-operation with the team's coaches. Using a quasi-experimental design, Kegelaers et al. (2021) assessed team resilience using the Characteristics of Resilience in Sports Teams Inventory (CREST, Decroos et al., 2017) at three time points: pre-intervention, between the first and second interventions, and after the second intervention. In addition, qualitative interviews took place following the interventions. Quantitative results demonstrated a significant decrease in team vulnerabilities shown under pressure, but no changes were observed in the demonstration of team resilience characteristics. Qualitative findings indicated that the intervention had a positive impact on team members' awareness regarding resilience within their team; on team members' emerging leadership; on their communication; and on the development and execution of collective plans. Secondly, Tassi et al. (2023) implemented a 4-week stressful constraints led approach to developing team resilience. The intervention was designed by a team of ten

expert university professors and consisted of four training sessions per week over the course of four weeks. It incorporated constraints to elevate the mental load and stress levels during the sessions. These constraints involved both environmental and task demands, such as the coach limiting possession or removing a player from the activity. They also employed a quasi-experimental design and measured team resilience using the CREST at three time points: pre-intervention, post-intervention, and follow-up within a four-week window after the completion of the intervention. Tassi et al. (2023) found that the intervention did not impair the experimental group's resilience, whereas the control group, which did not receive the constraints led training, showed a significant decrease in team resilience. Although both studies provided insights into effective methods for developing team resilience, they are not without limitations. Most notably, due to the absence of longitudinal data, it is unknown how long the positive effects of the intervention would have lasted for and how a team would cope with real-life adversities over the course of a season. However, both studies also exhibited strengths in their approach. For instance, Kegelaers et al. (2021) and Tassi et al. (2023) opted for a certain degree of co-development or co-implementation of the intervention. This likely influenced the effectiveness of their intervention by making it contextually relevant.

Outside the context of sports, researchers also opted for co-design approaches to intervention development instead of imposing a universally accepted, one-size-fits-all intervention (Chapman et al., 2022; Dubois et al., 2020). While Dubois et al. (2020) and Chapman et al. (2022) are yet to conduct their empirical investigations, their reports on their pilot studies and initial explorations provide valuable insights into team resilience intervention design, implementation, and evaluation. For example, Dubois et al. (2020) co-constructed four bespoke interventions (one for each participating institution) in the healthcare sector based on three core concepts. These core concepts included: 1) a team's ability to monitor and anticipate hazardous situations and prepare for them; 2) their ability to

respond to difficult situations; and 3) their ability to learn from difficult situations. Thus, teams can develop context-specific activities to develop these three concepts based on the characteristics of the individuals in their respective teams, the challenges they face, and the settings in which the teams operate in (Dubois et al., 2020; Gucciardi et al., 2018). As a second example, Chapman et al. (2022) co-designed an after-action resilience reflection tool called ‘STOP then Resource’ within the military and conducted a pilot study to assess its feasibility and applicability in that context. The pilot intervention involved completing a reflection worksheet twice during an 18-hour overnight military training activity that consisted of seven distinct performance stands. The questions in the worksheet pertained to five areas: a) the stressor event; b) the timing of event; c) an overview of the event; d) perceived impact; and e) resources (Chapman et al., 2022). The extensive feedback received from the participants in Chapman et al.’s (2022) study helped to understand their perceptions of the resilience enhancing tool, as well as any potential areas for further improvements, directly from the target audience. Consequently, such evaluations are imperative in gaining a complete understanding of a resilience enhancing intervention’s effectiveness.

The significance of intervention evaluations has been increasingly emphasised in recent studies (Hägglund et al., 2022; Keegan et al., 2022; Kegelaers & Oudejans, 2020; van Rens et al., 2021). Nielsen and Randall (2013) suggested that researchers should adopt a comprehensive and multifaceted approach to evaluating their interventions on three levels: (1) the intervention context, (2) the intervention content, and (3) the mental models of stakeholders. The *intervention context* refers to the culture of the organisation, and the specific events that may have influenced the intervention, such as changes in training locations (Randall et al., 2019; Rumbold et al., 2018). Gathering contextual data is paramount as it can impact the design and implementation of interventions by introducing facilitators and barriers to the intervention activities, which in turn directly affect the outcomes of the

intervention (Randall et al., 2019). Data regarding the *intervention content* includes adherence; frequency, amount, timing, and maintenance of participants exposure to intervention components; and the quality of intervention delivery (Randall et al., 2019). Lastly, *mental models* refer to the way in which stakeholders perceive the intervention context and implementation factors, such as their level of support for the intervention (Randall et al., 2019).

Furthermore, process evaluations can provide valuable insights that help interpret intervention outcomes, particularly in cases where interventions are implemented with small participant groups; where participants experience changing contexts; and involve intervention activities that are not entirely within the control of the researchers or practitioners (Cook & Fletcher, 2017; Randall et al., 2019). For instance, contextual stressors that vary throughout the season, such as sudden changes to selection processes or significant disruption to team or coaching personnel, can impact participant engagement and enthusiasm to participate in the intervention, consequently impacting the intervention outcomes (De Cuyper & De Witte, 2006). Finally, process evaluations are particularly useful in assessing interventions delivered in dynamic and complex environments where control groups are not feasible (Randall et al., 2019) such as in the context of sports.

As highlighted in the preceding literature, previous studies emphasised the significance of employing co-design approaches to intervention development in the field of team resilience (Dubois et al., 2020), conducting longitudinal interventions with multiple time point measures to enhance team resilience (Kegelaers et al., 2021; Morgan et al., 2019), and conducting process evaluations following interventions employed in dynamic contexts addressing contextual stressors (Randall et al., 2019). Therefore, the purpose of the present study was to co-produce, implement, and evaluate—both quantitatively and qualitatively—an evidence-informed multi-level longitudinal intervention aimed at enhancing team resilience

in professional women's football. It was hypothesized that the co-produced intervention would have a significantly positive effect on team resilience over time. The findings of this study are expected to provide sport psychology practitioners, researchers, and coaches with a deeper understanding of team resilience throughout a competitive season, as well as recommendation for enhancing team resilience within their respective teams. Specifically, the following hypotheses were proposed:

1. There will be a significant increase in the demonstration of team resilience characteristics throughout the season.
2. There will be a significant decrease in the team's vulnerabilities shown under pressure throughout the season.
3. There will be a significant increase in individual resilience throughout the season.

## **3.2 Methods**

### **3.2.1 Research Design**

Given the effectiveness of co-production in team resilience intervention studies (Chapman et al., 2022; Dubois et al., 2020; Kegelaers, Wylleman, et al., 2021; Tassi et al., 2023) and the dynamic nature of competitive sport, this study adopted an action research design. Action research "seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing on individual persons and their communities" (Reason & Bradbury, 2006, p.1). Within action research, researchers conduct research *with* participants and not *on* participants (Reason & Bradbury, 2006), through a collaborative approach involving strategic actions and critical reflection (Berg, 2004). Thus, the study involved co-producing the intervention with players and coaches, encompassing a continuous action-reflection cycle. Such action-reflection allowed for timely changes in intervention

design to respond to stressors and adversities, which are critical for interventions that respond to stressors in the field of sport psychology (Wagstaff et al., 2013) and for developing a contextually relevant team resilience intervention (Chapman et al., 2022).

The study was approached from a critical realist lens, acknowledging that whilst reality exists, individuals might have different perceptions of it mediated by their own experiences. Individuals' access to reality is complex as there are three domains of reality: the empirical, actual, and real. According to Bhaskar (2008), what we observe in the empirical domain, explain in the actual domain reflects the unobservable real domain. Specifically, the empirical level consists of experienced events, such as the ones measured or recorded in interpretivist or purely positivist research (Ryan, 2019). The actual level comprises of all events whether experienced or not, whereas the real reflects the unseen mechanisms that generate events (Houston, 2010). For example, not all aspects of traits are observable, such as genetic dispositions and neurochemical factors, but they are nevertheless real; however, we can only infer their existence (Ryba et al., 2020). With action research, scholars can “embrace the search for deep mechanism operating at the ‘real’ level” (Houston, 2010, p.88). Critical realism supports methodological pluralism (Lauzier-Jobin et al., 2022), so the study employs the use of mixed methods design, using both quantitative and qualitative measures to gain a better understanding of why an intervention was (or was not) effective, for whom and in what circumstances (G. Ryan, 2019).

### **3.2.2 Participants and Recruitment Processes**

A professional women's football team that was engaged in the needs assessment study detailed in chapter two, was purposefully recruited for two reasons: (1) the substantial challenges they reported in the pre-intervention study aligned with team resilience development research (i.e., without adversity a team cannot demonstrate resilience); and (2) they directly requested further support following the pre-intervention focus group—thus, a

working relationship with this team had already been established. This allowed for a level of contextual intelligence to be developed (C. H. Brown et al., 2005) important for team resilience intervention development (Morgan et al., 2019) and for effective working within professional sport (Champ et al., 2020). Altogether, the study consisted of 37 participants ( $M_{\text{age}} = 26.13$ ,  $SD = 7.31$ ), of which 13 were staff members including the general manager, manager (head coach), assistant manager, two performance analysts, assistant coach, goalkeeper coach, two strength and conditioning coaches, player liaison, physiotherapist, and two physiotherapist interns ( $M_{\text{age}} = 31.46$ ,  $SD = 8.63$ ) and 24 were players ( $M_{\text{age}} = 23.25$ ,  $SD = 4.47$ ). Involving a diverse group of key stakeholders provides comprehensive data on the topic from a variety of distinct viewpoints (Kegelaers, Wikkerink, et al., 2021). Participants were working or playing for their team for an average of 9 months (1 month – 84 months), from which staff have been working for the team for an average of 12 months (1 month – 84 months), and players have been playing for their team for an average of 7 months (1 month – 38 months). Two staff members worked on a part-time basis, three on an internship, one as a consultant and seven full-time. It is worth noting, that not all staff members working for the team chose to take part in the study (e.g., media personnel, kit personnel opted out). Apart from two players who held part-time contracts, all other players were contracted full-time.

Participants for the process evaluation interviews were recruited at the end of the season through an advertised opportunity to take part. The final sample consisted of 12 participants ( $M_{\text{age}} = 25.08$ ,  $SD = 4.60$ ) of which seven were players ( $M_{\text{age}} = 24.57$   $SD = 4.42$ ) and five were staff members ( $M_{\text{age}} = 25.80$ ,  $SD = 5.26$ ).

### **3.2.3 Data Collection**

Several methods were utilised to monitor and evaluate the effects of the team resilience intervention throughout the season than span from July 2022 until May 2023 (Table 2) that fit into the team's weekly schedule (Table 3). To gain an insight into the

longitudinal team resilience changes throughout the season (Chapman et al., 2020; Gorgulu et al., 2018; Hartwig et al., 2020; Kegelaers, Wylleman, et al., 2021; López-Gajardo, McEwan, Pulido, Díaz-García, & Leo, 2022), quantitative data was collected on multiple occasions, namely at pre-intervention baseline (August 2022), twice during the intervention (November 2022 and February 2023) and post-intervention (April 2023). To provide an in-depth understanding of team performance throughout the season alongside participants' perceptions of their team's resilience, a scoring sheet was used to detail wins, draws and losses.

Formal and informal discussions were conducted throughout the season to support the cyclical action research process of planning, implementation, monitoring, and reflection. These discussions encompassed biweekly meetings and regular informal conversations with the captain and manager to collaboratively develop the intervention (Table 2). To ensure that the intervention remained contextually relevant and to note any observations regarding team resilience, training sessions were observed twice weekly, while matchday observations were conducted in-person for home matches and remotely through recordings for away matches (Table 3). Additionally, a reflective diary was maintained throughout the season to record observations and field notes. Lastly, semi-structured interviews were conducted post-season (May 2023) to evaluate the intervention as part of the process evaluation outlined by (Randall et al., 2019)



**Table 2 - Season-long Phased Team Resilience Intervention Structure**

<b>Intervention phase</b>	Pre-season		Season								Post-season
<b>Intervention content</b> (Appendix 3)	Team meetings (MA)	Team meetings (MA)	Team meetings (MA)	Team meetings (MA)	Team meetings (MA)	Team meetings (MA)	Team meetings (MA)	Team meetings (MA)	Team meetings (MA)	Team meetings (MA)	
			GS (non-negotiables)	GS (non-negotiables)	SC (team building for pressure)	SC (team building for pressure)	GS (non-negotiables)	GS (poster)	CE (resilience wall)	CE (video, reflection)	
<b>Titles of example sessions</b> (Appendix 3)			Demonstrating togetherness under pressure	Demonstrating mentality under pressure	Building marshmallow towers	Team quiz	Mid-season reset to enhance group structure	What kind of teammate do you want to be?	Resilience wall	End-of-season reflection	
<b>Action research process</b>	Ongoing informal interviews, email, phone, and text message exchanges with the participants to co-produce the intervention (Appendix 5,6). Observations during training sessions and matchdays (Appendix 4). Reflective diary, field notes, and research log (Appendix 7).										
<b>Quantitative data collection</b>		CREST, BRS			CREST, BRS			CREST, BRS			CREST, BRS
<b>Qualitative data collection</b>	Reflective diary, field notes, and research log (Appendix 7). Informal interviews with the participants and observation notes (Appendix 4).										Semi-structured interviews
<b>Month</b>	July	August	September	October	November	December	January	February	March	April	May

MA = mastery approaches, SC = social capital, GS = group structure, CE = collective efficacy. CREST = Characteristics of Resilience in Sports Teams Inventory, BRS = Brief Resilience Scale.

**Table 3 - Weekly Team Schedule**

<b>Days of the week</b>	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Team's schedule</b>	Day off	Training day	Training day	Day off	Training day	Training day	Matchday
<b>Intervention programme</b>		- Training observation, - one-to-one sessions - Meetings with captain and manager	- Intervention planning (remote)		- Team resilience group workshop, - one-to-one sessions - Training observation, - MDT meeting		- Matchday observation (in-person or remote)

### ***Team Resilience Measurement***

The intervention was implemented at multiple levels; consequently, its measurement was conducted at both the team and individual levels. Team resilience was measured quantitatively using the 20-item Characteristics of Resilience in Sports Teams Inventory (CREST; Decroos et al., 2017). This scale was chosen as it is the only sport specific measure of team resilience. In addition, it has demonstrated satisfactory evidence of its construct validity, reliability, and internal consistency in sports teams in English (Decroos et al., 2017; Kegelaers, Wylleman, et al., 2021), Spanish (Ángel López-Gajardo et al., 2020; Tassi et al., 2023), Turkish (Gorgulu et al., 2018), and Chinese (Yang et al., 2020). The questionnaire assesses team resilience through two subscales: team resilient characteristics (e.g., “the strong bonds between teammates helped the team during difficult times”) and team vulnerabilities (e.g., “teammates started to communicate negatively with each other”). Participants evaluated their team’s performance under pressure by scoring the items on a 7-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). The items are added up to their corresponding factors, higher scores on the resilient characteristics demonstrates higher team resilience, whereas higher team vulnerabilities under pressure indicates lower team resilience. In the present study, both subscales demonstrated high reliability; vulnerabilities shown under pressure Cronbach’s  $\alpha = .79$ , resilient characteristics Cronbach’s  $\alpha = .89$ .

### ***Individual Resilience Measurement***

The Brief Resilience Scale (BRS; Smith et al., 2008) was used to measure individual resilience among the participants. This scale was chosen due to its previous use with athlete samples (Martin et al., 2021; Neves et al., 2018; Vidic, 2021; Vidic & Cherup, 2022), which provided satisfactory evidence of its construct validity, reliability, and internal consistency. Unlike other measures such as the CD-RISC (Connor & Davidson, 2003), which was specifically developed for clinical practice, the BRS does not specify a target population,

indicating its utility for the general population. As the sample included professional football players and staff members with ordinary lives, this measure was deemed the most appropriate. The BRS assesses individual's ability to bounce back or recover from stress and it consists of 6-items, with 3 of them being negatively worded designed to reduce social desirability and response bias (B. W. Smith et al., 2008), consequently being reverse scored. Example items include "I have a hard time making it through stressful events" and "I usually come through difficult times with little trouble". Participants rated their ability to bounce back or recover from stress on a 5-point Likert-type scale ranging from "strongly disagree" to "strongly agree". The scale demonstrated high reliability, with Cronbach's  $\alpha = .75$  in the present sample.

### ***Team Performance***

To evaluate whether the team improved their overall performance compared to the previous season and to understand the changes that could be related to team resilience during the season, an objective indicator of team performance was measured. Specifically, the football league's point system (that determines league position) whereby a loss was entered as a '0', a draw as a '1' and a win as a '3'. Team performance as an outcome was continuously assessed throughout the season.

### ***Field Notes and Reflective Diary***

In unpredictable and changing intervention environments, such as high-performance sports, it is recommended that practitioners keep a detailed record of field notes of their observations as they provide a deep and flexible form of enquiry (Randall et al., 2019). Thus, field notes were recorded throughout the season to keep a descriptive account of daily activities. These field notes included information such as location of observed events, individuals that were present, the physical setting, and the type of social interactions (Lofland et al., 2006). To illustrate, an example field note entry on 01/11/2022 recorded an observed

event, “player meeting amongst themselves due to some friction” or on 13/01/2023 “during the MDT meeting, I suggested that at this point in the season it would be good to reinforce the values.” They added contextual information around the setting, environment, and daily stressors – relevant to intervention development, implementation, and evaluation.

Concurrently, a reflective diary was kept documenting personal experiences of operating in the dynamic context. For example, data recorded in field notes were reflected upon with specific detail to personal impressions and feelings regarding the event (Champ, 2017). The reflective diary offered documented evaluations of achievements and shortcomings in the research process, while promoting a critical analysis of assumptions, actions, and emotions in a self-reflective and self-aware manner (Wagstaff et al., 2013). To illustrate, an example entry from the reflective diary on 14/08/2022 showed how the research process presented uncertainty at times as the following comment demonstrates: “I felt awkward hanging around again, wasn’t quite sure what to do, where to go, no one needed help. I felt a bit more comfortable than during the last home game friendly, but not quite there yet.” The field notes and the reflective diary provided ongoing critical evidence informing intervention decisions and the cyclical action research process (Wagstaff et al., 2013).

### ***Process Evaluation***

A semi-structured interview guide was developed based on Randall et al.’s (2019) process evaluation recommendations. Interview the questions related to the intervention context, intervention content, and mental models (appendix 2). In addition to the interview questions, photo elicitation was used to ‘sharpen’ and stimulate memories of the participants (Banks, 2001), and to prompt emotional connection to those memories consequently providing more meaningful accounts (Kunimoto, 2004). A researcher-driven approach to photo elicitation was adopted, whereby photos of the intervention programme content was taken (e.g., achievement wall celebrating moments of resilience) and used them to stimulate

discussion during the interviews (Bates et al., 2017). As such, the photos themselves were not analysed, instead the narrative accounts served as the data set (Harper, 2002).

### **3.2.4 Procedures and Intervention**

Recent resilience research points to the need to identify the ‘resilience to what’ in practical work on resilience (Chapman et al., 2022) prior to intervention implementation. Therefore, to identify contextual stressors within the target population of high-performance women’s football, a pre-intervention study was conducted. As detailed in chapter two, this study included focus group interviews with five football teams, as well as the involvement of an expert steering group consisting of industry experts such as a representative from the sport’s NGB, sport psychology researchers, and sport psychology practitioners operating in the specific context being studied ( $n=6$ ). In summary, the systematic needs assessment identified the contextual stressors faced by high-performance women’s football teams which included both organisational stressors arising from a newly professionalised environment and on-pitch stressors arising from low social resources. It also identified effective team resilience practices currently employed by group members such as establishing a strong foundation for high quality relationships, unity in managing pressure, and learning from setbacks to inform future preparation for adversity. Additionally, the needs assessment highlighted perceived gaps in team resilience development, including limited effectiveness and inconsistent use of deliberate pressure training, inadequate psycho-social resources, and lack of effective proactive group level strategies during pressure. These findings formed the basis for the development of the multi-level team resilience intervention detailed in this chapter.

The participating team’s manager was contacted in April 2022, following their participation in the needs assessment detailed in chapter two. An online meeting was then set up with the manager, assistant manager to discuss the requirements of the intervention

research project. The team's manager agreed to take part and to facilitate the research project for the upcoming season. Prior to the start of the season, another online meeting took place whereby players from the previous season shared their feedback on what went well and their recommendations for improvements for the upcoming season. Following institutional ethical approval, informed consent forms were distributed and signed by the participants in pre-season along with the first set of questionnaires to collect baseline data. The multi-level team resilience intervention (Table 2 and Appendix 3) was then co-produced throughout the season with the manager and the team captain to suit the needs of the team. The season long team resilience intervention focused on enhancing the characteristics of team resilience identified by Morgan et al. (2013), such as mastery approaches, social capital, group structure, and collective efficacy utilising team resilience processes (Morgan et al., 2015) along with enhancing individual resources during one-to-one sessions.

Intervention activities designed to enhance *mastery approaches* were implemented during regular team meetings held on training days (Tuesday, Wednesday, Friday, Saturday). These meetings were led by the coaches and typically lasted for approximately 30 minutes. On Tuesdays, the team engaged in reflection by reviewing video clips from the previous Sunday's game, analysing instances where the team was under pressure. Effective debriefs and team reflections have been highlighted as a vital component to developing team resilience (Alliger et al., 2015; Chapman et al., 2022). Wednesdays were dedicated to preparing for the upcoming game, analysing the strengths, weaknesses, and key players of the opposing team. Such preparation activities facilitate the establishment of appropriate response mechanisms in the face of adversity and may concurrently mitigate the potential negative impacts of adverse events on teams (McEwen & Boyd, 2018). Fridays were solely focused on Sunday's game, covering set pieces, individual roles, and responsibilities under pressure. Saturdays followed a similar structure but included on-pitch walkthroughs to

practice set pieces and corners further increasing preparedness a key area for team resilience development (Alliger et al., 2015; Hartwig et al., 2020). On match-days, these set pieces were printed and displayed on the walls of the team's changing room.

*Social capital*, which refers to the presence of high quality and caring relationships (Morgan et al., 2013), was bolstered in various ways during the season, both informally and formally. For instance, team members had breakfast and lunch together at the training ground on their training days, thus offering a platform for individuals to provide informational, esteem, tangible, and emotional support to one other, all of which are vital components of social capital. In addition, formal team building activities were organised throughout the season, such as building a marshmallow tower, participating in a quiz to learn interesting facts about each other, and creating gratitude baubles at Christmas. Furthermore, two separate posters were created one for players and one for staff members with the question, "What kind of teammate/staff member do you want to be?". The responses were compiled into a word cloud and posted in the communal area. These activities were designed to establish a strong interpersonal foundation (Lengnick-Hall & Beck, 2005) that team members could draw on during adversity (see example session plans in Appendix 3).

*Group structure* was strengthened via the appointment of a captain and vice-captain to foster shared leadership. Such leadership is key for dealing with challenging situations (Morgan et al., 2013; Sarkar & Page, 2022; Van Der Kleij et al., 2011). Furthermore, team members developed and agreed on their shared vision and 'non-negotiables' during the pre-season, an activity led by the team captain. The term "non-negotiables" was context-specific and had already been adopted by the players to define their values. It referred to a specific set of principles that team members held as essential and did not compromise on, regardless of the challenges they encounter. This activity was to help the team create a sense of purpose and agreed behavioural principles which they can draw on during difficult times (Morgan et



al., 2013). In addition, team meetings were held throughout the season, focusing on the behaviours required to demonstrate these non-negotiables and to facilitate effective communication channels (see example session plans in Appendix 3). These non-negotiables and behaviours were also prominently displayed on the walls of the changing rooms. Moreover, a goal setting session was conducted for staff members during the season to further enhance group structure and reinforce shared vision.

*Collective efficacy* was enhanced through the utilization of transformational leadership and the delivery of inspirational speeches by the manager during the daily team meetings. In addition, on two occasions throughout the season, motivational videos were created highlighting the team's achievements. These served to enhance social persuasion, vital to collective efficacy (Morgan et al., 2013). Furthermore, higher levels of perceived collective efficacy have been linked with higher perceived levels of team resilience characteristics (López-Gajardo, García-Calvo, González-Ponce, Díaz-García, et al., 2022). Moreover, when the team encountered a challenging period, collective efficacy was strengthened via the creation of a 'resilience wall'. This wall featured photographs depicting instances in which the team demonstrated resilience, carefully chosen by team members. However, this also provided an opportunity for injured players to showcase their own personal resilience moments, such as their first game after a prolonged injury. These helped build on mastery experiences and group cohesion, an important element of collective efficacy (Morgan et al., 2013). Additionally, a meeting was held towards the end of the season to facilitate a discussion on the challenges teammates successfully overcame throughout the season, the strategies they employed to overcome them, and the valuable lessons they learned from the experience (see example session plans in Appendix 3).

### **3.2.5 Data Analysis**

Quantitative data were analysed using SPSS version 28. The two questionnaires, CREST and BRS, were first checked for their internal consistency; then descriptive statistics were run on data derived from the questionnaires followed by the analysis of the CREST and the BRS using repeated measures ANOVA and a Friedman test where appropriate across the four time points. Though the sample included 37 participants, as a result of the dynamic context of the environment such as players being injured and changes to personnel during the season, only 14 of them completed all four time points for the CREST and 12 the BRS. Therefore, data were entered from 14 participants data were entered for the analysis of the CREST and from 12 participant data were entered for the analysis of the BRS.

Qualitative data of the semi-structured process evaluation interviews were inputted into NVivo qualitative analysis software (Release 1.7.1). A six-step inductive reflexive thematic analysis (cf. Braun & Clarke, 2022) was undertaken from a critical realist standpoint: (1) interviews were transcribed verbatim yielding 132 pages of single-spaced text, 59,323 words; (2) the transcripts were read and re-read for familiarization; (3) coding took place using Nvivo, with 55 codes identified in total; (4) initial themes were generated by moving the codes into clusters to make up three higher order themes; (5) they were then reviewed, defined and named; (6) the analysis continued through the write up engaging in continuous reflection.

### **3.2.6 Validity, Reliability, Quality and Methodological Rigor**

The quality of the quantitative and qualitative strands was assessed separately (Sparkes, 2015), with specific detail given to the way the different methods were mixed (Bryman et al., 2008). Regarding the quantitative strand, the validity and the reliability of the questionnaires used in the project are reported in section 3.3.1 Concerning the qualitative strand, several strategies were employed to ensure rigour and quality of the data. For

instance, the researcher-sport psychologist spent the entire season with the participants; thus, a certain level of trust and rapport was built with the team prior to the semi-structured interviews. It is thought this could contribute to the participants' feelings of safety within the interviews to share personal information (Kegelaers, Wylleman, et al., 2021). In addition, to maintain methodological coherence throughout the planning, delivery, and evaluation of the intervention, continuous self-reflection and reflexive discussions were conducted between the lead researcher and the research team (B. Smith & McGannon, 2018). Lastly, direct quotations are provided in the qualitative findings section to supplement the analysis and interpretation of the data.

The integration of the different methods used within a research project has been recognised as a key criterion for a study that claims to be mixed methods (Bryman et al., 2008). According to Sparkes (2015) “without integration there can be little ‘value added’ to our understanding beyond that produced by the separate components of an MMR study” (p. 54). The specific integration of the qualitative and quantitative methods took place in the evaluation phase, with a sequential explanatory design. Quantitative data was collected first (throughout the season), which informed some of the questions in the process evaluation interviews. In addition, the qualitative data helped explain the quantitative results (Dawadi et al., 2021; Pluye & Hong, 2014) which are detailed in the discussion section.

### **3.3 Results**

#### **3.3.1 Quantitative Results**

The aim of quantitative analysis was to examine changes in resilience when comparing the baseline to time point 1, time point 2 and post-intervention. To determine the appropriate statistical tests for the data, normality tests were conducted using both the Kolmogorov-Smirnov and Shapiro-Wilk tests. The results are presented in Table 4. The

normality tests for BRS scores (BRS\_1\_score, BRS\_2\_score, BRS\_3\_score, BRS\_4\_score) and CREST characteristics (CREST\_1\_charact, CREST\_2\_charact, CREST\_3\_charact, CREST\_4\_charact) indicated that the data for these variables were normally distributed. For the BRS scores, the p-values for the Shapiro-Wilk test were all greater than .05, indicating no significant deviation from normality. For the CREST Characteristics, the p-values for both the Kolmogorov-Smirnov and Shapiro-Wilk tests were all greater than .05, indicating no significant deviation from normality. Given the normal distribution of these variables, a repeated measures ANOVA was deemed appropriate to analyse the differences across the time points. ANOVA was suitable because it compares the means of three or more groups, assumes normality of the data, which was confirmed by the normality tests, and allows for the assessment of within-subjects effects over multiple time points.

The normality tests for the CREST vulnerabilities (CREST\_1\_vulner, CREST\_2\_vulner, CREST\_3\_vulner, CREST\_4\_vulner) indicated that the data were not normally distributed. The Shapiro-Wilk test had a p-value less than .05, indicating a significant deviation from normality. Given the non-normal distribution of these variables, the Friedman test was chosen. The Friedman test is a non-parametric alternative to the repeated measures ANOVA and is suitable because it does not assume the normality of the data, compares multiple related samples, making it appropriate for repeated measures, and uses ranks to test for differences across multiple time points or conditions.

**Table 4 - Tests of Normality for the CREST and BRS**

<b>Variable</b>	<b>Kolmogorov-Smirnov Statistic</b>	<b>df</b>	<b>Sig.</b>	<b>Shapiro-Wilk Statistic</b>	<b>df</b>	<b>Sig.</b>
BRS_1_score	0.223	12	.101	0.936	12	.445
CREST_1_vulner	0.196	12	.200*	0.890	12	.117
CREST_1_charact	0.203	12	.187	0.943	12	.542
BRS_2_score	0.240	12	.055	0.910	12	.213
CREST_2_vulner	0.156	12	.200*	0.938	12	.471
CREST_2_charact	0.125	12	.200*	0.971	12	.921

<b>Variable</b>	<b>Kolmogorov-Smirnov Statistic</b>	<b>df</b>	<b>Sig.</b>	<b>Shapiro-Wilk Statistic</b>	<b>df</b>	<b>Sig.</b>
BRS_3_score	0.165	12	.200*	0.895	12	.138
CREST_3_vulner	0.289	12	.007	0.885	12	.103
CREST_3_charact	0.180	12	.200*	0.943	12	.534
BRS_4_score	0.188	12	.200*	0.906	12	.189
CREST_4_vulner	0.166	12	.200*	0.930	12	.381
CREST_4_charact	0.140	12	.200*	0.933	12	.411

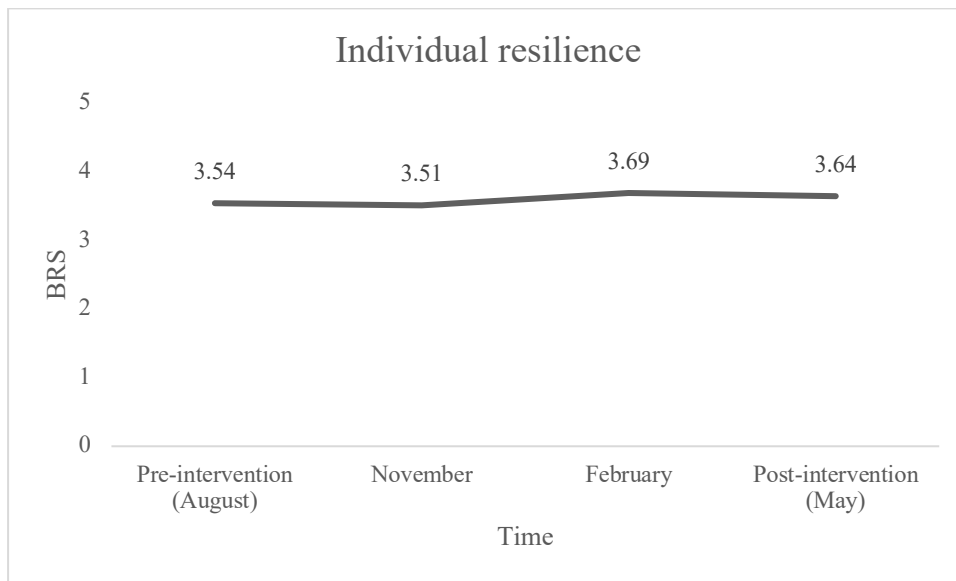
## BRS

A repeated measures ANOVA was conducted to evaluate the effect of time on the BRS scores. The descriptive statistics for BRS scores across the four time points are presented in Table 5 along with its graph in Figure 1. Mauchly's Test of Sphericity indicated that the assumption of sphericity was met,  $\chi^2(5) = 11.125$ ,  $p = .050$ . The within-subjects effects did not indicate a statistically significant effect of time on the BRS scores  $F(3,33) = 0.392$ ,  $p = .760$ .

**Table 5 - Descriptive Statistics for the BRS Scores**

<b>Time Point</b>	<b>Mean</b>	<b>Standard Deviation</b>
BRS_1_score	3.54	0.88
BRS_2_score	3.51	0.79
BRS_3_score	3.69	0.83
BRS_4_score	3.64	0.49

**Figure 1 - Trajectory of Individual Resilience**



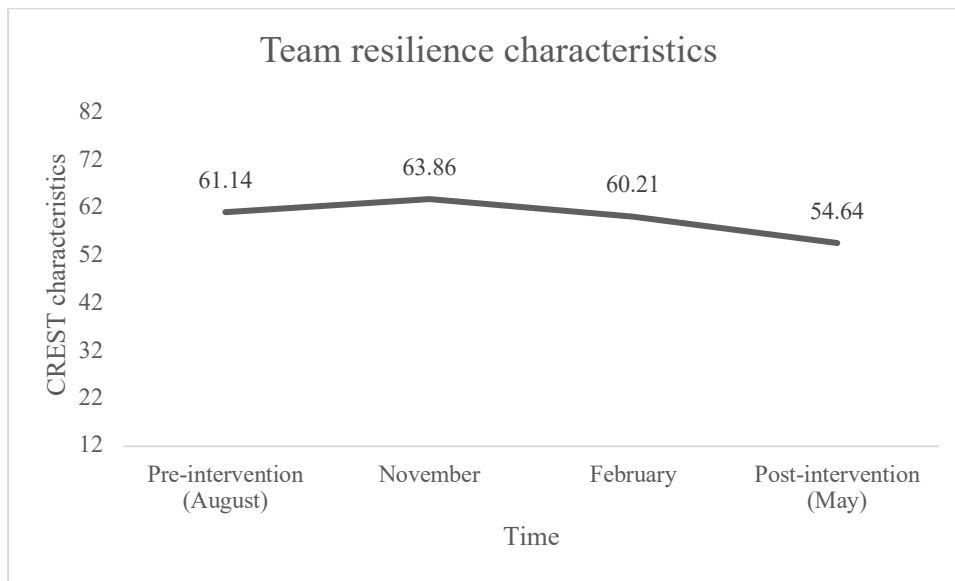
### CREST Characteristics

A repeated measures ANOVA was conducted to evaluate the effects of time on the CREST characteristics. The descriptive statistics for CREST characteristics across the four-time points are presented in Table 6 and Figure 1. Mauchly's Test of Sphericity indicated that the assumption of sphericity had been met,  $\chi^2(5) = 6.324$ ,  $p = .277$ . The within-subjects effects indicated a statistically significant effect of time on the CREST characteristics  $F(3,39) = 5.239$ ,  $p = .004$ .

**Table 6 - Descriptive Statistics for the CREST Characteristics**

Time Point	Mean	Standard Deviation
CREST_1_charact	61.14	9.23
CREST_2_charact	63.86	7.70
CREST_3_charact	60.21	7.54
CREST_4_charact	54.64	9.81

**Figure 2 - Trajectory of Team Resilience Characteristics**



Post-hoc pairwise comparisons (Table 7) with a Bonferroni adjustment indicated that there was a significant difference between the second ( $M = 63.86$ ,  $SD = 7.70$ ) and the fourth ( $M = 54.64$ ,  $SD = 9.81$ ) time points ( $p = .004$ ).

**Table 7 - Pairwise Comparisons for the CREST Characteristics**

		Mean Difference (I-J)			
(I) Time	(J) Time	J)	Std. Error	p	95% Confidence Interval
1	2	-2.714	2.269	1.000	-9.764 to 4.335
1	3	0.929	2.737	1.000	-7.574 to 9.431
1	4	6.500	2.968	.284	-2.722 to 15.722
2	3	3.643	1.582	.230	-1.271 to 8.557
2	4	9.214*	2.076	.004	2.764 to 15.664
3	4	5.571	2.458	.247	-2.065 to 13.208

\*Note: Mean difference is significant at the .05 level.

### CREST Vulnerabilities

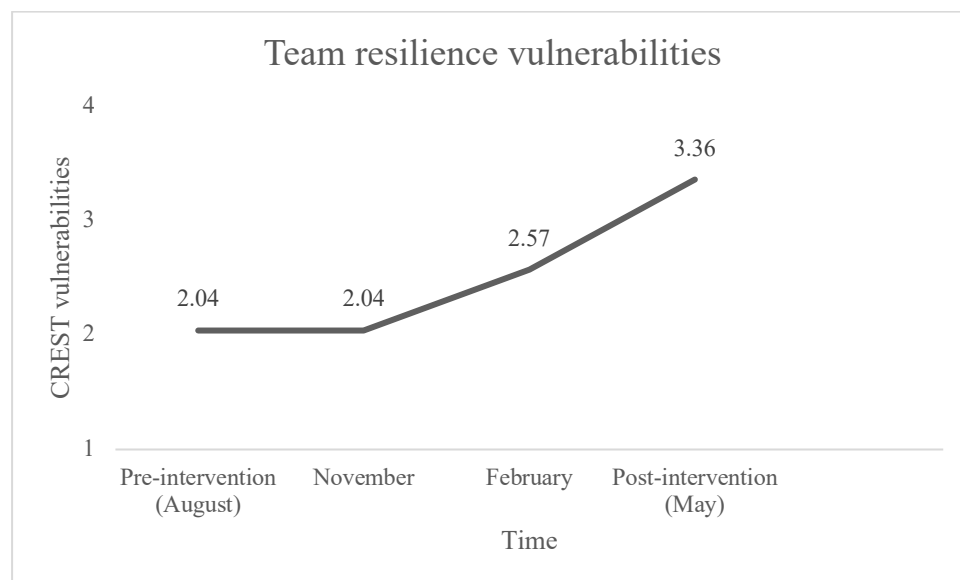
A Friedman test was conducted to evaluate differences in CREST vulnerabilities across four time points. The mean ranks are presented in table 8. The test was significant,

$\chi^2(3) = 10.353, p = .016$ , indicating that CREST vulnerabilities differed significantly across the four-time points (Figure 2).

**Table 8 - Mean Ranks for the CREST Vulnerabilities**

Time point	Mean Rank
CREST_1_vulner	2.04
CREST_2_vulner	2.04
CREST_3_vulner	2.57
CREST_4_vulner	3.36

**Figure 3 - Trajectory of Team Resilience Vulnerabilities**



### Summary of the Quantitative Pre/Post Intervention Results

The repeated measures ANOVA for BRS scores did not reveal significant changes over time pre and post intervention, suggesting that the participants maintained their resilience despite challenges experiences throughout the season. However, the repeated measures ANOVA for CREST characteristics showed significant changes across the four time points, suggesting changes in team resilience characteristics during the entire intervention period. More specifically, there was a significant decrease in resilient characteristics over time. The Friedman test was chosen for CREST vulnerabilities due to the non-normal distribution of this data – the test revealed significant differences in vulnerabilities across the time points,



indicating variations in team vulnerabilities over time. More specifically, there was a significant increase in vulnerabilities shown under pressure over time.

### **3.3.2 Process Evaluation Findings**

Through reflexive thematic analysis, three higher order themes were identified based on participants' experiences with the multi-level, season-long psycho-social team resilience intervention. The first theme, *intervention delivery*, encapsulates participants' experiences regarding the overall delivery of the intervention, including perceived barriers, enabling factors, intervention content, and the scheduling of group sessions. The second theme, *intervention effectiveness*, reflects participants' perceptions of the effectiveness of the multi-level, season-long psychosocial team resilience intervention. Lastly, the third theme, *intervention improvements*, conveys participants' views and suggestions for enhancing the team resilience intervention. Collectively, these themes provide a comprehensive view of participants' experiences and contribute to a nuanced understanding of the intervention's effectiveness and potential areas for future development.

**Table 9 - Intervention Process Evaluation Findings**

Theme	Sub-theme
Intervention Delivery	Perceived barriers to team resilience intervention delivery Enabling factors for team resilience intervention delivery Intervention content Scheduling of the delivery of group sessions
Intervention Effectiveness	Observable team outcomes Researcher – sport psychologist skills Team resilience trajectory over time
Intervention Improvements	Intervention design Organisation, structure, and format for the delivery of one-to-one sessions Synergy and engagement between sport psychologist and coaching staff

### ***Intervention Delivery***

The first higher order theme reflects the participants' experiences with the general delivery of the intervention and has four subthemes: (a) perceived barriers to team resilience intervention delivery, (b) enabling factors for team resilience intervention delivery, (c) intervention content, and (d) scheduling of the delivery of group sessions.

***Perceived barriers to intervention delivery.*** Participants reported several perceived barriers to the delivery of the team resilience intervention, such as initial lack of buy-in, time constraints for sport psychology sessions, group sessions feeling separate at the start of the intervention before becoming the norm, inadequate meeting facilities, and the influence of players' mood on their own attitudes towards group sessions. According to some participants, the onset of the intervention revealed a significant perceived lack of buy-in from certain players and staff members, as the team had not previously engaged with a sport psychologist. This situation posed challenges for senior staff in integrating this new approach within the existing working environment. This was highlighted by one of the coaches:

Particularly with somebody like the manager, who's like, I mean, she has been a manager for more than 20 years, but she has managed probably 19 years without a sports psychologist or any sports psych so it's like a new way of working. (staff member)

Therefore, players and staff members had to adapt to the inclusion of the sport psychology group sessions into their intensive and demanding weekly schedules, despite having limited time available. Initially, players perceived that these sessions were disconnected from the core business at the beginning of the season, with one staff member describing it as "I think my personal opinion is that it has been a bit of a journey of getting used to it, and I think by the end embracing it". In addition, players noted that the facilities used for the team resilience intervention workshops were perceived to be inadequate, as such,

in the absence of a separate room for the group sessions, they were held in a communal area. This communal area happened to be adjacent to the coaching staff's meeting room, which according to one of the participants had a perceived direct impact on the group sessions:

And I think sometimes this year with no fault of our own because the staff are in the meeting room and then we're outside, the people feel well they are in there, maybe they could hear. But obviously there is nowhere else you could do it, so it's difficult.  
(player)

***Enabling factors for team resilience intervention delivery.*** Participants discussed the factors that they found facilitated the effectiveness of the intervention. These factors included interest in the intervention, its perceived importance, its contextual relevance, conducting player only meetings, working in small groups, incorporating a variety of group sessions, and utilizing visual cues in the training ground. Whilst some initial resistance and lack of buy-in from certain team members were observed, contrastingly, many participants expressed their interest and high level of engagement in the intervention. One participant reported, "I think the majority of people enjoyed it and would want it [the sessions]". Additionally, participants acknowledged the perceived importance of the added sport psychology component in their schedule. They also emphasised the contextual relevance of the team resilience intervention, specifically noting that the activities were collaboratively determined with the team captain based on the team's needs at that time. One participant noted, "I liked how it was quite flexible in terms of it wasn't already scripted before we got in". Additionally, the overarching theme of team resilience was deemed pertinent to their particular context. One of the coaches further emphasised this point:

I think it was a really good concept because most women's teams, everybody comes together quite newly formed. So, I think it's hard to build team resilience with lots of

new people straight away. I think it was a good focus, it was a relevant topic to focus on. (staff member)

Participants discussed the beneficial effects of subdividing into smaller groups of three or four individuals during larger team resilience group sessions. They suggested that this facilitated a safe and amicable environment for the team members to express themselves and to get to know a different teammate each time. In addition, they noted that having player only meetings in the team resilience intervention without the staff members being present created a level of transparency and honesty among the players. This sentiment was indicated by one of the players:

It's very important sometimes for a team to reflect within itself without the staff there because it's a lot easier to be open and honest with each other, when the staff aren't present. Because you're not worried about how you're going to be judged. And you know the staff, they do their best to get to know everyone, but they don't know the dynamics within the team as well as we do. So, it's nice to have that sort of judgement free zone to talk to each other about what we need. (player)

Participants in the study expressed that they found the visual cues around the training ground that were created during the team resilience intervention to be especially helpful which enabled the intervention to have perceived positive effects. They specifically noted that the women's side of the training ground lacked any visual appeal, being described as "very basic", with an absence of colours and decorations which dampened players mood. By contrast, the participants found that the inclusion of personalised posters and photos on the walls enhanced the environment, making it a "more interesting and happier and just a nicer place to be in". The team resilience intervention also encompassed a range of diverse activities and discussion topics, which the participants found particularly valuable. They emphasised that each session felt unique and stimulating, as they were constantly exposed to

new ideas and concepts: “being exposed to new stuff and ideas and everything and you had different pick me ups along the way”. One of the participants reflected on the diverse nature of the team resilience group sessions in greater detail:

I think the fact that they were all slightly different and we had different activities, it wasn't always just a case of sitting down having a conversation. Cause I think some people might have found that maybe a little bit tedious or not really been engaged as much as they could have been [...] I think it broke it up quite nicely and helped it to feel a bit more like you weren't doing it, but you were, if that makes sense. It didn't feel like you were being forced to do it, it felt like it was fun and like it was helping and almost you were doing it without even realising you were doing team building stuff. (player)

***Intervention content.*** The specific content of the intervention was discussed, particularly activities related to the characteristics of team resilience, namely collective efficacy, group structure, and social capital. A noteworthy element of the intervention was the creation of a ‘resilience wall’ towards the end of the season, which aimed to enhance the team’s collective efficacy. Each player selected a photo representing a personal moment of resilience, which was then displayed on the wall in the communal area (see session plan in Appendix 3). These moments included significant team performances, memorable goals, important wins, and individual standout moments such as returning from injuries. One staff member offered insightful reflections on the perceived significance of this task during adversity:

I feel like that was a really big kind of statement for the girls just to kind of show these are achievements throughout this season obviously especially with rehab players coming back onto the pitch, just making them feel that extra special. Obviously

putting photos up in the wall. I feel that changed their performance as well as their mood and their mindset. (staff member)

Group structure was targeted to enhance the team's resilience throughout the season through activities centred around team values and non-negotiables, particularly during pressurised situations. Once the players agreed their non-negotiables for the season, regular meetings were held to discuss how they could embody and demonstrate these non-negotiables during challenging situations or setbacks (see example session plans in Appendix 3). Additionally, videos were shared with the players, showcasing instances from training and matchdays where they demonstrated these desired group resilience behaviours. The team's changing rooms were adorned with these words, using the team's colours to reinforce the players' connections to them. Moreover, a meeting was organised in the middle of the season, following the Christmas break, to adequately reflect on their use of these non-negotiables and whether adaptations were needed (see session plan in Appendix 3). One of the goalkeepers explained the perceived importance of such activities during pressure within their goalkeeper union consisting of three goalkeepers and the goalkeeping coach:

I think, it's different being a goalkeeper because you have your little goalkeeper union family. And it's a very different dynamic to the rest of the team because we're forced to be working together, you know, very close every single day and the non-negotiables have to be solid and set out for you. Otherwise, the whole system wouldn't work and it's going to be a really horrible environment to come into. So, I think for a goalkeeper union you need those, and you need to all be on the same page about it, if it's going to be successful. (player)

Activities targeting social capital to enhance team resilience were consistently implemented through team building activities throughout the season. These activities included, for instance, building the tallest spaghetti tower that could balance a marshmallow

on top (see session plan in Appendix 3), or a small group competition involving spelling out words with the players' bodies. Team members noted that while the content of these sessions was always useful, one participant noted that "it was probably more the bonds we made when we were doing the fun activities" that made the sessions particularly useful. Participants then felt that they were able to draw on these resources (e.g., bonds) when faced with an adverse event during the season. They recognised the importance of effective communication and listening to each other during these activities, and how these skills translated to perceived improved performance under pressure. One participant specifically reflected on the timing of a particular activity, which she found to be beneficial:

Then we had the dry spaghetti and try and make it as tall as possible. That was the first ones that I did. And that actually, I was quite shy, and I'd only talked to a couple of people that had come up to me, whereas we were put into groups and forced to work together. And that really sort of forced me to interact and, and get to know people and I think that worked really, really well. (player)

***Scheduling of the delivery of group sessions.*** Participants explored the specifics regarding the day and time of the team resilience group sessions, the duration of the team resilience group sessions, and the frequency of the team resilience group sessions. The participants noted that allocating 20-30 minutes for each session was not considered "intrusive". In addition, according to one of the staff members, "the fact that it was short and sweet and to the point and didn't take loads of their time, I think was actually a massive positive". In general, the participants reported that the time slot for the team resilience group sessions within the intervention was deemed "convenient" and integrated well into their schedules:

I think having it Friday afternoon was probably the best time. Because Tuesdays is usually a like a review of the match, Wednesdays is the physical, like the most



physical loading day in terms of training, and then Friday you come back in, you start preparing yourself for the weekend and having that kind of five days to reflect from the previous game to then building up to the next game. I think Friday afternoons worked perfectly. Cause then on match day minus one you're thinking more of the tactics and set pieces and all that kind of stuff. (staff member)

### ***Intervention Effectiveness***

The participants highlighted several perceived benefits of the multi-level, psycho-social team resilience intervention. Consequently, the second higher order theme reflects the participants subjective views on the perceived effectiveness of the intervention. Data analysis generated three subthemes which pointed to the specific benefits arising from the team resilience intervention: (a) observable team outcomes, (b) researcher – sport psychologist skills, and (c) team resilience trajectory over time.

***Observable team outcomes.*** Participants identified a number of perceived key observable team outcomes during the process evaluation that occurred as a result of the intervention. These perceived outcomes included heightened energy levels on pitch, improved performance, a more positive team environment, enhanced togetherness, and greater understanding of each other. Both teammates and staff members acknowledged an increase in focus and energy on the pitch following the group sessions that focused on enhancing the characteristics of team resilience. One participant noted, “you did notice the session would pick up and there would be more energy in the session”. In addition, an increase in individual and team performance was noted as an outcome of the intervention, specifically when under pressure. Such increase in the team’s performance was demonstrated by the team’s overall improvement in their league position at the end of the season. Throughout the season, there were consistent improvements in individual performances despite facing stressors, as noted by one staff member who reflected:

As the as the season went on, you could see the benefits from it [intervention] in terms of like the results and for instance, like the off-field shenanigans that go on in people's personal lives and how they may have come through that to then perform at the optimum level on the on the pitch. (staff member)

The perceived increased improvement in individual performance was partly attributed to the participants' enhanced understanding of each other, which was facilitated through the team resilience group sessions. One participant explained that “when you're in a high-pressure situation on a pitch, when for example someone makes a mistake, you have the potential to be able to handle that better”. Consequently, this led to an overall improvement in the team's collective performance. In addition, the participants noted that the intervention had bolstered a stronger sense of togetherness, which also contributed to a better team performance as explained by a player: “ultimately if you are together as a team then you play better”. Furthermore, the intervention had a perceived positive effect on the team's overall environment, as two of the participants explained:

We were more together at times on the pitch. I think there was a lot of times where we fought till the end and obviously scored like last minute winners and things like that. And I think that could be to do with that togetherness that we were trying to get as a team and like fighting for each other and fighting to the end. I think that could have been down to some of that work [team resilience group sessions]. (player)

This is the most together and just friendly environment that I've been in as a team, and I think it is largely down to the honest moments that we spent with each other off the field [in team resilience group sessions] that helped improve play on the field and also improve our chemistry as a team. (player)

**Researcher – sport psychologist skills.** The perceived effectiveness of the researcher – sport psychologist was discussed by the participants. This included commentary around the

provision of expert knowledge, confidential support, the researcher-sport psychologist's presence, and the recognition of the ongoing need for support. As discussed earlier, this was the first season in which the team had access to a sport psychologist since becoming a professional team. While some players and staff members who previously worked with a sport psychologist in other clubs were familiar with the concept, for many, this was a new experience. Despite the novelty and uncertainty surrounding the role, staff members acknowledged the benefits of having someone with expert knowledge in a field that was not their area of expertise, "knowing that area is covered", thus ensuring comprehensive support. In addition, both players and staff members appreciated the availability of confidential support "I think players felt that they could confide in you and similar to staff, especially the management staff". This was further outlined by one staff member:

Having you there obviously opens the doors for someone to speak to. And especially in, not necessarily the younger players, but just any players and even staff, sometimes they don't want to open up to say for example, myself, sometimes I might not want to open up to someone else in the medical who I work with really close to day-to-day. So, it just having that extra person there, they can speak to you, and it will be confidential and just to get some advice, whether that's within work, whether that's outside, personal life and I feel like it did play a massive part on the team. (staff member)

The participants also discussed the significance of having a sport psychologist present. One team member stated that, "I think just the small chats, the conversations, the importance of checking in, those kind of things". Another participant also shared similar sentiments, "the little chats on the beanbags, I thought that kind of casual how you would talk to us was really nice". Moreover, the perceived effectiveness of the practitioner was evidenced by players recognising the ongoing need for support and expressing a desire for

sport psychology to become permanently integrated in their team. Players offered reflections on this:

I think every club should have one [sport psychologist] anyway just if any individual players need to talk to you. I think everyone should have that, I think you know, football is a massive, obviously the coaching staff are there to help us physically, but like the mental side of the game, I think could even be worse than the physical side. Like as a player, you get in your head so much, win, lose, draw if you're playing, if you're not playing. So, I think it's important that we almost exercise our brains as much as we exercise our bodies. I think we need to have access to a sport psychologist. (player)

***Team resilience trajectory over time.*** The trajectory of the team's resilience throughout the season was discussed in the process evaluation in relation to the quantitative results. Participants commonly expressed a perceived improvement of their team resilience during the first half of the season with comments such as “the resilience you could see gradually got better throughout the season”. Some players elaborated on the reasons behind this perceived increase in team resilience at that the point in time, highlighting an impressive 8-game winning streak despite experiencing significant stressors such as multiple injuries within the team:

I think that the fact that we had a small squad, and we were winning so people just believed that we could win the league. Because we were beating teams with this small squad and were doing really well. And a lot of ACL injuries, so that kind of pushes people on even more, because it makes you think you're lucky to be playing and you could be injured. (player)

However, the quantitative results demonstrated a decline in the team's resilience during the latter half of the season. Team members discussed multiple reasons for this

decline. Firstly, the completion of the questionnaires following losses was seen as problematic. Participants mentioned that “these sorts of scores are always dependent on how the last game has gone”. They also noted “frustration” following such defeats, and their emotional state affecting the outcomes of their responses, “I think it is difficult to do to speak from your heart of the team when you're asking those questions and I think a lot of it because of your emotional state”. Secondly, the team’s overall aim for the season was to finish at the top of the league table and get promoted, which did not happen. The league’s structure, with only one team being promoted and one team being relegated, left the team with nothing to play for once they realised, they would not achieve their goal. Team members discussed that they realised they were not going to get promoted following a significant defeat right before the third data collection point. During this time, participants acknowledged that they became “comfortable” and that “in the end, people just didn't care”. Additionally, the team faced a couple of weeks of fixture congestion, which was highlighted as a significant stressor. During this time, no sport psychology work was allowed, leading to high pressure with limited support available. According to the participants, these experiences in the second half of the season had a notable influence on the quantitative results. However, it is important to note that some participants disagreed with the quantitative results and provided examples of instances where they perceived that the team did demonstrate resilience, even towards the end of the season:

I think that's when obviously we thought as a team, we went down, was it 2 nil at half time? But then we come back in the second half to draw 2-2. So obviously that shows that, we didn't give up as a team, we still kept going. That showed that we were resilient. (player)

I think towards the end of the season, I'd say to be fair actually, when I think about it, we didn't actually lose that many games. It was just more frustrating because was it

[opposition] and [opposition] we drew so I think that like even though we drew, we didn't lose so we were still resilient enough to come back against [opposition] and [opposition]. So, I wouldn't say that we were not resilient through that. (player)

### ***Intervention Improvements***

The third and final higher order theme reflects the participants views and suggestions for the improvement of the team resilience intervention. This theme includes three subthemes: (a) intervention design, (b) setup of one-to-one sessions, and (c) synergy and engagement between sport psychologist and coaching staff.

***Intervention design.*** Regarding team resilience intervention design, discussions related to linking intervention to performance, the allocation of additional time to sport psychology, and the need for a player leadership group, and the coaches' engagement with the team resilience group sessions. The participants suggested that to increase buy-in from the team, psychosocial interventions should consistently emphasise performance outcomes, and their ability to contribute to the team's success, how it can "help the team win". One player proposed the idea of engaging in team resilience activities on the field, "we could do as groups outside on the pitch that relates to the psych side of things" to establish a stronger connection to team performance. Another improvement to intervention design includes the amount of time that was allocated to sport psychology. Most participants acknowledged that the timing of the team resilience group sessions fitted in well within the given context, they also highlighted the need for more time to be spent on the mental side of football. This was underscored by one of the players:

I think it's fitting it in around the environment and it's always, in sport, probably not just in football, but it's always everything else, bar the coaching aspect, is everything else, little bits and pieces trying to fit around the major part of sport. Especially with sport psych, I think there could be a little bit more time given towards it. Because it's

so important, but obviously the physical side of things and the on-pitch stuff and then watching and analysis will always come first. But I think people, especially coaching staff as well and some players involved, I don't think they realise how important sport psychology is. (player)

Participants also recognised the need for a player leadership group to provide support to the appointed captain in various aspects. They acknowledged that everything fell on the captain during the season, as one participant stated, “I said about the captain not organising the socials and that, but no one sees all the stuff she has to do behind the scenes”. Player leadership group was mentioned by the researcher-sport psychologist to the coaching staff several times during the season, with no uptake. Another suggested intervention improvement includes the coaches’ engagement with the group sessions. Commentaries from both players and staff members indicated that there could have been more integration among themselves with certain team resilience group sessions. Indeed, the players highlighted the importance of player only meetings as discussed higher up in the findings, participants still recognised that the coaching staff could have taken part in more team resilience group sessions. It is worth noting that the coaching team was invited to attend these group sessions, but there was no uptake. However, one staff member reflected on how it could have been beneficial to attend:

I think it would have definitely benefitted the staff to interact a bit more. I think it's good that the players have got their own thing going. And I think that it is important that the staff have their own thing going. But I do think it's equally as important to have it all together as one. (staff member)

An area in which such integration would have proven especially advantageous was in the process of identifying team values, objectives, and non-negotiables. At the start of the season, the players displayed a strong desire to identify their non-negotiables independently. One participant emphasised that “us as players have to take responsibility for the values and I

think it's good that we came up with them". However, upon further reflection, most participants expressed a preference for collaboratively identifying these values alongside the coaching staff. One player explains:

So, in terms of the meetings, it's very difficult, isn't it? Because it depends on what the meeting is about. I think with non-negotiables and things that are important to the whole group, I think could be done together. I think it is sometimes really important to have staff and players on the same page. So, whether it's goals and targets that we're setting, I think everyone should have a big discussion about it [...] I think a lot of people this year felt that staff didn't have the same goals as the players. So then if you've got a breakdown between half the group and then the other half it is difficult to then with players you go ok, we want to get promoted, that's our long term goal for the season [...] But then it felt like, and this isn't just coming from me, a lot of players felt this, that staff didn't have the same feeling towards that, that they felt like we weren't able to do that. (player)

***Organisation, structure, and format for the delivery of one-to-one sessions.***

Participants raised several suggestions for improving the implementation of one-to-one sessions for both staff and players. These suggestions included the establishment of a scheduling system for one-to-one sessions; the introduction of compulsory one-to-one sessions for everyone; the provision of online one-to-one sessions; and the allocation of a separate physical space for one-to-one sessions. Participants strongly recommended the implementation of a scheduling system that would enable them to secure specific time slots for one-to-one sessions. Additionally, some team staff members expressed interest in making these sessions mandatory:

I wonder about each player having a check-in at the beginning of the season. They obviously have to want to do it, but in an ideal world, I think that would be stipulated



as part of being a professional player and almost having a check in at the beginning of each month. I think this is out of your hands to some extent, but, like the manager, makes sure that everyone schedules a check-in so people can sort of identify their strengths and their weaknesses in this area. (staff member)

Participants also recommend that sessions should be offered to take place online away from their training/work environment. Moreover, as alluded to earlier, the facilities for the team resilience group sessions lacked privacy, thus there was no separate, private space where such confidential conversation could take place. Participants expressed hope that by acknowledging the significance and benefits of sport psychology for the team, such a designated space will be created at their training ground:

However, and this is not your fault at all, you can't do anything about it, which I'm hoping is going to change for the next season is that there will be a specific space for players to come and talk to someone like you because it's all quite open and there's not really any privacy within the building at the minute. So, I think that's probably the main thing in my opinion, that should be changed is to have that sort of safe space to talk and for to not be judged and to kind of be hidden in a way. (staff member)

### ***Synergy and engagement between sport psychologist and coaching staff.***

Participants noted an observable lack of synergy between the coaching staff and the sport psychologist. They specifically noticed that sometimes the sport psychology sessions felt separate and disconnected from the overall training programme. As a result, they proposed the need for greater integration between the sport psychologist and coaches, suggesting that the sport psychologist working more closely together with the manager could be beneficial. These findings align with the barriers discussed earlier in the findings of the process evaluation, which included a perceived lack of buy-in and acceptance of the team resilience intervention among some staff members at the start of the season. Some players felt that the

sessions were separate from the rest of their coaching programme and that the sport psychologist had just “put on the sessions and it more felt like it was just you as opposed to like a staff thing”. To address these issues, participants suggested that a) closer collaboration between the sport psychologist and the manager, and b) increased integration between the sport psychologist and the coaches. One of the coaches also recognised the potential benefits of such integration and identified a possible approach:

I think I could have used some of their language that they've signed up to themselves. And like in training sessions, I would have called out things like mentality, and winning work rate. And if they're not demonstrating them, I would call them out and say, look, these are things that you've signed up to, so who's holding yourselves accountable to this? I would also then praise it when I see it and say, you know you've all said that you're buying into and I've really seen in today's session a winning mentality, for example, that's how I would use them. (staff member)

### **3.4 Discussion**

The aim of this study was to co-produce, implement, and evaluate a multi-level season-long psychosocial team resilience intervention within the context of professional women's football. The study used an action research design with quantitative and qualitative measures to evaluate the effectiveness of the intervention. At the individual level, participants' resilience scores did not demonstrate a statistically significant change across the season, indicating sustained levels of resilience as they maintained their resilience despite experiencing ongoing stressors throughout the season. At the team level, the resilient characteristics subscale of the CREST started with a positive trend at the beginning of the season but then demonstrated a statistically significant decline in the second half of the season. The analysis of the team vulnerabilities subscale of the CREST showed a statistically significant increase pre/post intervention. Other measures such as performance outcomes

indicated positive effects at the end of the intervention period (i.e., the team improved their overall team performance by achieving more points and finishing higher up in the league table compared to their previous season). This particular finding is noteworthy in the context of professional football, which is a performance-oriented environment where even the success of the support teams is measured by on pitch athletic performance outcomes (Cruickshank & Collins, 2012). In contrast to the quantitative assessment of the intervention which showed mixed outcomes, the findings from the process evaluation indicated that team members reported numerous perceived positive outcomes and benefits from the season-long psychosocial team resilience intervention. Throughout this discussion the combined findings of the quantitative and the qualitative data analysis will be examined to evaluate the impact and prominent features of the intervention such as temporal dynamics and fluctuating outcomes of the study (Dawadi et al., 2021; Pluye & Hong, 2014).

### **Individual Resilience**

This is the first study in high-performance sports to track individual resilience using a form of quantitative measure throughout an entire season, thus making its' findings pivotal for enhancing our understanding of performance under pressure. Despite numerous contextual challenges experienced throughout the season (e.g., injuries, poor on-pitch performance, heavy defeats), the participants did not demonstrate statistically significant changes in their individual resilience scores, indicating sustained levels of psychological resilience over time. An explanation for these findings is that the intervention enhanced participants' ability to withstand stressors. Interestingly, resilience research in sport psychology has examined the concept of robust individual resilience (Ashdown et al., 2024; Fletcher & Sarkar, 2016) which refers to individuals maintaining their performance and well-being when under pressure. The participants in the study maintained their performance as indicated by the performance outcomes of the season as well as their levels of individual

resilience throughout the season. It is important to acknowledge some of the behavioural indicators of robust resilience identified by Ashdown et al. (2024) in football which include positive self-talk when facing challenge, showing composure when under pressure, and wanting the ball despite losing possession previously. Coaches and sport psychology practitioners might find these indicators helpful to look for when identifying robust resilience. Sustained levels of individual resilience therefore may influence team resilience as during an adverse event team members use their individual and combined resources to effectively manage such challenges (Morgan et al., 2013) as identified by the participant in the needs assessment study (“you gotta be able to try and sort your own emotions out first” p. 96).

While resilience researchers state that a team of resilient individuals does not make a resilient team (Alliger et al., 2015), there is consensus that team resilience is a multi-level construct (Hartwig et al., 2020). Therefore, individual resilience may influence team resilience. According to Hartwig et al. (2020) and the findings of the needs assessment study detailed in chapter two, if team members can manage adverse events effectively on an individual level, it may allow them to better focus on team-related tasks and facilitate group processes (e.g., engage in efficient communication and collaboration) during challenging situations which may influence team resilience. In addition, Hartwig et al. (2020) proposed that resilient team processes arise from the collective knowledge, skills, and abilities of team members (Kozlowski & Klein, 2000). Furthermore, Chapman et al. (2021) found that, applying self-regulatory skills to maintain individual performance under pressure was considered key to team resilience emergence. This study responded to the needs analysis findings detailed in chapter two regarding the importance of individual level support, previously recognised as a key component of a team resilience intervention (Gucciardi et al., 2018; Hartwig et al., 2020; Morgan et al., 2013). The findings appear to support the

importance of the incorporation of individual one-to-one sessions for athletes and staff members into a team resilience intervention. This may have contributed to the individuals' ability to withstand stressors through the enhancement of participants' psychological skills during one-to-one sessions (e.g., as noted by one staff member on page 143).

### **Team Resilience**

While the individual resilience scores remained relatively stable across the season, the results of pre/mid/post team resilience intervention scores demonstrated changes between the time point measurements highlighting the role of temporal aspects of team resilience. Specifically, the team resilience characteristics subscale of the CREST showed an upward trend at the early phase of the season, followed by a statistically significant decline in the latter half of the season. Furthermore, the vulnerabilities subscale of the CREST indicated a statistically significant increase over time, suggesting that the team demonstrated more vulnerabilities during pressurised situations in the second half of the season. These findings may be explained by the specific contextual factors during the intervention period and the broader professional women's football environment. Indeed, the process evaluation provides rich and essential insights into the relevance of contextual factors during the intervention.

The upward trend at the start of the season may be attributed to the strong emphasis placed on identifying and monitoring team non-negotiables, also known as team values. This likely enhanced group structure (Morgan et al., 2013) as noted by the participants in the process evaluation through the intervention's perceived positive influence on the team's environment. This is an important finding as activities centred around team values foster social identity which in turn enhances team resilience (Sarkar & Page, 2022). Consequently, within the context of professional women's football, a strong emphasis on group structure at the start of the season was seen to enhance team resilience. At the beginning of the season, establishing a clear group structure—defining roles, expectations, and responsibilities—

helped lay a solid foundation for team dynamics. This clarity may have facilitated collaboration and ensured that team members are prepared to handle challenges collectively, enhancing overall team resilience. It is likely that team resilience processes emerged once relationships were built as once the foundational structure was in place, team resilience is further developed through the building of interpersonal relationships. As detailed in the needs assessment study in chapter two, these relational bonds are essential for sustaining performance and overcoming setbacks.

Regarding the statistically significant decline in the characteristics of team resilience there are a number of explanations. Firstly, to ensure methodological rigour, the questionnaires were consistently distributed during the last week of the month designated for data collection. However, in the latter half of the season, this timing coincided with major defeats. More specifically, the third phase of data collection took place following the first loss after an eight-game winning streak. This suggests that team members may have been more inclined to hold negative perceptions of their team, as indicated by participants in the process evaluation (“these sorts of scores are always dependent on how the last game has gone”). Although other researchers (Askim & Knardahl, 2021; Podsakoff et al., 2012; Zumbach & Funke, 2014) also discussed the potential impact of affective states on subjective reports, the participants in the process evaluation in this study explicitly referenced such phenomena. Consequently, the psychological state of team members, influenced by the outcomes of their most recent match, may have affected their responses on the questionnaire that related to perceptions of the team as a collective. Interestingly, team members did not change their perceptions of their own abilities to handle challenges as evidenced by the results of the individual resilience scores.

Additionally, while a statistically significant decline was observed in the team resilience characteristic subscale of the CREST, participants in the process evaluation

indicated contrasting results. They suggested that they still demonstrated team resilience as noted by one of the participants, “we come back in the second half to draw 2-2. So obviously that shows that, we didn't give up as a team, we still kept going”. Moreover, the results of the process evaluation showed perceived increases in the characteristics of team resilience over time. Firstly, participants reported that the intervention bolstered social capital (Morgan et al., 2013) through an enhanced sense of togetherness and understanding of each other among team members. This may be attributed to the emphasis placed on continuous team building activities throughout the season. Group cohesion has previously been identified as a trigger for team resilience; the more united a team is on and off the field, the greater their ability to overcome adversity (López-Gajardo, García-Calvo, González-Ponce, Díaz-García, et al., 2022). Although the importance of social structures has been highlighted by many researchers (Fasey et al., 2021; Gucciardi et al., 2018b; Hartwig et al., 2020; Morgan et al., 2013), the significance of placing continuous emphasis on such practices throughout the season in this particular context was examined in chapter two. The findings of the present study showed that while the quantitative measures indicated a decline, the process evaluation findings highlighted the maintenance of team resilience despite the challenges faced.

Another important contextual information to consider in relation to the results is the current structure of the women's football leagues in England. Specifically, only one team is promoted, and one team is relegated at the end of each season. The process evaluation results highlighted the importance of this contextual aspect as participants explained that once they had realised that their ultimate goal for the season (promotion) was unattainable, teammates began to reduce their efforts, as evidenced in the process evaluation findings. To illustrate, participants stated that by the end of the season, “there was nothing to play for”. Although there is a much research examining the benefits of goal setting, such as increased motivation and persistence (Jeong et al., 2021; Widmeyer & Ducharme, 1997), longitudinal studies

investigating the negative consequences of failing to achieve goals prior to the end of the season are notably lacking. Another negative consequence of the current league structure that may impact team resilience was explained by one of the coaches in the process evaluation. He stated that due to the short length of player contracts, players must plan their future and search for a new club even before the season comes to an end. Consequently, individuals' commitment to their teams may considerably diminish towards the end of the season, which may negatively impact team identity thereby impacting team performance and overall team resilience. In summary, contextual information such as the heavy defeat prior to data collection, and the current structure of the league enhance our understanding of the quantitative findings.

### **Intervention Improvements**

The process evaluation findings indicated potential opportunities to improve team resilience interventions in the context of professional women's football. According to the participants, one way to achieve this is by increasing coaches' involvement in various aspects of the intervention, such as participating in workshops and integrating sport psychology into their physical training programme. However, it is important to note that implementing this may pose challenges in practice. The prevailing emphasis on winning, along with employment insecurities and power dynamics, has resulted in a fragmented sport culture where coaches and support personnel within the same team often experience separation (Ashton, 2016; Dijkstra et al., 2014; S. Gilmore et al., 2018; Malcolm & Scott, 2011). In addition, there are still stigmatised attitudes and negative misconceptions towards sport psychology, as previously reported (Barker & Winter, 2014; Linder et al., 1991; Martin, 2005; Ravizza, 1988). These attitudes likely influence the challenges encountered in terms of coaches' acceptance and utilisation of sport psychology, as revealed in the process evaluation findings. Although coaches were invited to participate in many intervention activities in the



present study, they mostly declined. Suggestions were made to enhance the setup for the one-to-one sessions, such as making them mandatory for everyone, providing a separate space, or the option for online sessions, and implementing a scheduling system. This finding is somewhat connected to the previous point mentioned regarding the acceptance and utilisation of sport psychology within this context. Specifically, for sport psychology to be embedded into the high-performance team environment, individuals responsible for promoting of the sport psychology programme (i.e., coaches and alike) need to possess a higher level of psychological literacy (Dean et al., 2022). Once this is achieved, adequate support can be provided to the practitioner, and the sport psychology programme, which may result in better resources.

Overall, the findings of this study demonstrated that when evaluating the effectiveness of an intervention, it is crucial to consider multiple metrics to gain a more comprehensive understanding. While performance outcomes are essential in high-performance sports, they do not always provide a complete picture, as uncontrollable factors (e.g., opponent) can influence these outcomes (Ashdown et al., 2024). Although self-report questionnaires such as the CREST are valuable for reporting performance changes and trends to coaches, they should be combined with process evaluations to provide a more detailed account of the intervention, their perceived benefits and impacts. For example, even in the latter part of the season, participants reported a strong sense of resilience within their team, despite the quantitative data suggesting a deterioration in levels of team resilience. This research appears to reinforce that team resilience is a dynamic construct that fluctuates throughout the season in accordance with contextual factors and events. However it can be enhanced in professional women's football with a multi-level intervention, but its' influence will likely differ at various parts of the season and be influenced by contextual factors.

### **3.4.1 Strengths and Limitations**

A strength of this study was continuing the line of inquiry within women's sport. Previously, there has been more emphasis on creating and testing interventions for male athletes, while female athletes have received comparatively less attention (D. J. Brown & Fletcher, 2017). Unfortunately, many areas of women's football continue to rely on research conducted on male athletes, which has led to growing concerns about the health and well-being of female players (FIFPro, 2022). Indeed, the present study adds valuable resources to sport psychology practitioners and coaches in supporting individuals operating in this environment.

Another strength of this study was the utilisation of an action research methodology employing a co-design approach to intervention development and implementation, rather than adopting a “universally accepted intervention” (Dubois et al., 2020, p. 3) or a “one size fits all approach” (Chapman et al., 2022, p. 3). This approach facilitated the creation and execution of a team resilience intervention that was highly relevant to a specific context, thereby enhancing the ecological validity of the study. Co-design approaches are increasingly employed in intervention studies (Chapman et al., 2022; M. A. M. Davies et al., 2017; Dubois et al., 2020) to ensure contextual relevance to the performance setting. Although there could have been a myriad of ways to deliver a team resilience intervention, the dynamic nature of professional women's football required a co-design approach to accurately assess the team's requirements, ranging from issues such as the appropriate scheduling of sessions to the type of content delivered in group workshops. Critically, the findings of this study underscored the importance of co-design methods in producing an engaging and effective intervention.

Moreover, this approach required deep immersion in the performance context, which not only benefitted the research but also the participants. For example, participants highlighted the importance of the researcher-sport psychologist's “mere presence” in

enhancing a psychologically informed environment throughout the team. According to Sarkar and Page (2022), such an environment can facilitate a team's resilience since the environment plays a vital role in developing resilience. This study demonstrated that a sport psychologist can positively influence the environment by continuously checking in with individuals even in an informal manner such as through casual conversation on beanbags, as well as more formally by providing confidential support (as noted by the participants in the process evaluation on pages 146-148).

A key strength of the study was the depth and breadth of feedback obtained from team members through the process evaluation conducted post-intervention, which also utilised photo elicitation. By incorporating images related to the intervention, participants were prompted to reflect deeply on their experiences, offering detailed and meaningful feedback that traditional methods may not have elicited (Banks, 2001; Bates et al., 2017; Kunimoto, 2004). This visual approach encouraged participants to articulate their perceptions of the intervention's impact on team resilience and dynamics in ways that were both structured and open-ended. The combination of structured participant evaluation with photo elicitation allowed for a holistic assessment of the intervention's effectiveness, as well as highlighting areas for improvement in future implementations.

Additionally, the present study used mixed methods which encompassed diverse data collection methods and measures. This provided a thorough and complete vantage point about the evaluation of longitudinal psychosocial team resilience intervention. Practically, this offered valuable insights for practitioners and organisations about the benefits of combining statistical outcomes and the lived experiences of team members to inform the design and implementation of team resilience development programmes.

Regarding intervention design, a season-long multi-level intervention with multiple time point measures is the first to my knowledge that captured insights into the dynamic

nature of team resilience. Conducting a season-long intervention helped advance psychology research in the study of team resilience. Such a comprehensive duration of the intervention provided unique observations and experiences that reinforced definitional and conceptual aspects of resilience being represented as a dynamic process that fluctuated over time in response to various challenges and experiences. By employing multiple time point measures, this thesis acknowledges that team resilience is influenced by ongoing interactions, stressors, and successes throughout the season.

Moreover, a key strength of this study was that the intervention was delivered by a final-year trainee sport and exercise psychologist. The trainee's work was supported by regular supervision, which played a crucial role in refining the intervention's design and delivery. The supervision ensured that the intervention was implemented according to best practices, while also providing an opportunity for ongoing adjustments to maximize its impact. This collaborative process contributed to a more effective team resilience intervention, as the delivery was continually informed by both the trainee's direct experience and the expert guidance of the supervisors.

Despite its strengths, it is important to acknowledge the limitations of the study. Firstly, conducting a longitudinal intervention showed the challenge of working in complex team environments such as the turnover of team members through incidents like injuries and illnesses. For example, only 14 out of the 37 participants had completed all four quantitative time point measures for the CREST and 12 for the BRS. Thus, the final sample size for all four time points became particularly small for statistical data analysis, threatening the validity of the longitudinal quantitative results (Bell et al., 2013) of the questionnaires.

Second, a limitation of this study is that the Brief Resilience Scale (BRS) was used to assess individual resilience, despite it not being a sport-specific measure. While the BRS has been utilised in sport settings in previous research (Martin et al., 2021; Vidic, 2021; Vidic &

Cherup, 2022), it is primarily designed as a general measure of resilience and may not capture the unique aspects of resilience that are specific to the context of high-performance sport. The BRS assesses the ability to bounce back or recover from stress, but it may not be sensitive enough to detect sport-specific changes in resilience, such as those related to athletic stressors, performance pressures, or the physical and psychological demands unique to competitive environments. This limitation suggests that future research should consider the development and validation of more specialized resilience measures that are designed to reflect the challenges faced by athletes in high-performance settings. Indeed, recent studies highlighted the need for sport-specific measures of resilience that can better account for the complexities and nuances of resilience in athletic contexts (Kegelaers, Wylleman, et al., 2021; Sarkar & Fletcher, 2013).

Another possible limitation was that the CREST demonstrated a high potential sensitivity to the subjective states of the individuals as reported by the participants in the process evaluation. For example, the process evaluation included participants' views that completing self-report questionnaires after disappointing defeats was challenging. Therefore, alterations in team members' feelings or perceptions could have resulted in substantial variations in the numerical data collected. While the CREST provides useful numerical data, it is designed to capture general trends and may not fully reflect the nuances of individual perspectives. This limitation could lead to inconsistencies in the data collected, potentially obscuring meaningful insights into participants' genuine feelings or experiences. Future studies may consider administering the CREST on a monthly basis to capture more nuanced temporal changes.

Lastly, several contextual challenges specific to women's professional football were encountered throughout the intervention. For example, a significant issue was the difficulty in securing full 'buy-in' at the start of the season from some team members, which hindered the

integration of sport psychology into their regular training programme as noted in the process evaluation findings under perceived barriers to intervention delivery. More quality time with team members may have helped address this challenge. Additionally, the structure of the season presented ongoing challenges, such as international breaks that led to key players being temporarily absent from the team. While this is typical in high-performance sport, the impact on a psychosocial intervention provided some specific constraints and a potential loss of momentum during key points of the season. For example, the turnover of both players and also key staff impacted not only participation in the intervention but also the completion of questionnaires. Fixture congestion, exacerbated by adverse weather conditions and insufficient facilities for women's football, necessitated a temporary suspension of team-level intervention activities. While these challenges are not uncommon for sport psychology practitioners working in high-performance sports settings, they nevertheless posed a difficulty for conducting research over a prolonged period. Given these factors, the use of multiple data collection methods become even more essential to provide a more comprehensive and nuanced interpretation of the season-long multi-level team resilience intervention results.

### **3.4.2 Future Research Directions**

This is the first study that aimed to implement and assess a multi-level team resilience intervention longitudinally, throughout an entire season. Several potential future research avenues arose from the findings. Firstly, due to the uniqueness of each team environment, and the benefits of co-design approaches for contextual relevance, a single team was selected for the intervention. However, resilience researchers should consider conducting quasi-experimental studies or nonrandomized controlled intervention designs to advance the literature on team resilience interventions. For instance, similarly to McEwan and Beauchamp (2020), researchers could investigate multiple teams and/or different sports in an

intervention, which would also increase statistical power. This might also allow an insight into whether certain team cultures or environments enhance or hinder the effectiveness of resilience building practices and how these factors influence the outcomes of such interventions. Alternatively, researchers might choose to design multiple team resilience interventions that focus on different aspects of the team resilience characteristics (e.g., social capital, mastery approaches, collective efficacy, and group structure).

Secondly, whilst there are some individual resilience scales that have been used in sport settings (e.g., BRS, Smith et al., 2008; CD-RISC-10, Campbell-Sills & Stein, 2007), this performance domain would benefit from the development of a sport-specific measure of individual resilience to enhance the accuracy of measuring resilience within the context of high-performance sport. Such a measure would enhance the validity of resilience assessments, enabling more targeted interventions to support athletes' well-being and optimise performance. By developing a more accurate tool, this research could deepen our understanding of resilience mechanisms in sport and lead to more effective psychological support strategies for athletes.

Thirdly, future team resilience intervention research with teams that tend to be relatively stable in their composition might wish to conduct 6 and/or 12-month follow-ups to assess the long-lasting effects of the intervention. This would allow researchers to assess the long-term effects of resilience-building interventions, offering valuable insights into how the impact of these practices evolves over time. Understanding whether and how resilience-enhancing strategies continue to influence team dynamics and performance after the intervention would provide crucial data on the sustainability and effectiveness of such interventions in fostering enduring team resilience.

Additionally, future researchers may wish to continue exploring the multi-level nature of team resilience by examining how resilience operates at different levels within a sports

team, including the individual, team, and organisational levels. Specifically, research could assess how interventions targeting individual resilience contribute to or disrupt team resilience, and how both levels are shaped by the wider organisational environment, including leadership styles, team management, and organisational resources. This type of research could provide a more comprehensive understanding of the complex and interconnected factors that contribute to team resilience and offer insights into how interventions can be tailored at each level to enhance overall team performance and well-being.

Finally, sports psychologists play a crucial role in the implementation of psychological interventions. However, there is limited qualitative research exploring the lived experiences of sports psychologists as they implement these interventions. Consequently, future studies should investigate their experiences, as understanding their perspectives, challenges, and strategies can yield valuable insights into the effectiveness of interventions and contribute to the development of best practices in the field.

### **3.4.3 Applied Implications**

The findings provide important practical implications for coaches and sport psychology practitioners working within performance settings. Firstly, whilst player only meetings are still desired to take place to offer players a safe and confidential place, coaches should be encouraged to participate in sport psychology activities with the whole team to increase togetherness, and a sense of “we are all in this together”, ultimately impacting on team resilience. This is particularly important when establishing team goals and values for the season, which have meaningful influence on team resilience (Morgan et al., 2013). Indeed, the whole team including players, coaching and support staff should set out their shared vision along with their non-negotiables together at the start of the season.

Furthermore, it is recommended that sport psychology practitioners collaborate closely with both the team manager and leadership (e.g., captain, vice-captain or other



leadership positions). To illustrate, Den Hartigh et al. (2024) indicated that the integration of psychologists, sports scientists, data scientists, and sports practitioners facilitates the effective acquisition of novel scientific and practical insights. Such enduring collaborations have the potential to enhance athletes' health and performance over prolonged periods (Den Hartigh et al., 2024). In the context of the present study, it is crucial that such collaboration be integrated into all phases of a research project, including the identification of suitable timing slots for group sessions, ensuring alignment with the participants' demanding schedules. This strategic approach may enhance the effectiveness of sport psychology interventions by fostering greater engagement among athletes.

Another implication arising from this study is that sport psychologists and coaches should focus on team resilience and development throughout the season to increase social capital, thereby positively influencing team resilience (Carmeli et al., 2013; Morgan et al., 2013, 2015). The results of the process evaluation showed that a key benefits of collectively engaging in team resilience development was the formation of group bonds. Team members reported particular benefits of this type of activity compared with the learning about specific content. Such approaches included icebreakers, cooperative tasks, and informal social gatherings that allow team members to connect on a personal level and considering the impact during a team's challenging situations. These connections and focus on relationship quality become key for managing and overcoming challenges (E. King et al., 2023). The implications of this study encourage a shift in perspective, viewing team resilience development as an integral part of the entire season rather than an ancillary activity. Consequently, rather than limiting team resilience intervention activity to pre-season or specific workshops, coaches and sport psychologists should integrate these activities into regular training sessions.

Moreover, it is imperative for coaches and sports practitioners maintain a keen focus on the latter half of the season, given the prevailing structure of the professional women's football league. The findings of this research suggest that this period is particularly susceptible to shifts in participants' subjective perceptions of the season. It was observed that athletes frequently began to explore new opportunities for the subsequent season, which considerably affected their commitment to the current team and, in turn, impacted overall team resilience. This may be an explanation for the types of fluctuations in measures of team resilience during the season. Therefore, it is recommended that coaches and sports psychology practitioners design and implement interventions specifically tailored to address the unique challenges and dynamics of this critical phase in the season. Furthermore, practitioners should consider the intervention design and content that might be more impactful in accordance with specific stressors (e.g., the team is not able to gain promotion while a substantial part of the season remains).

Lastly, it is essential for sports psychology practitioners to actively engage in self-reflection and foster open dialogues with supervisors and peers (e.g., colleagues working in sport and exercise psychology) in order to navigate the barriers commonly encountered in professional team sport. For example, a practitioner may set aside time each week for personal reflection, using tools like journaling or structured self-reflection to critically evaluate their approaches with athletes or coaches. In addition, engaging in regular case discussions with supervisors or attending peer meetings can provide valuable external perspectives. This reflective practice not only enhances personal and professional development but also facilitates a deeper understanding of the complexities inherent in the field (Cropley et al., 2010; McDougall et al., 2015). By critically examining their own experiences and seeking insights from peers, practitioners can better identify challenges and develop effective strategies to address them.

### 3.4.4 Conclusion

In summary, this study examined the co-production, implementation, and evaluation of a multi-level season-long psychosocial team resilience intervention within professional women's football. Employing an action research methodology with mixed measures the study required full immersion in the research context. At the individual level, the participants' resilience scores did not demonstrate a statistically significant change over the course of the season, suggesting sustained levels of individual resilience. At the team level, temporal changes and fluctuations in measures of team resilience characteristics were observed. Specifically, the resilient characteristics subscale of the CREST displayed a positive trajectory at the beginning of the season but as the season progressed, a statistically significant decline emerged. Following the analysis of the team vulnerabilities subscale of the CREST, a statistically significant increase was observed. While other measures such as performance outcomes indicated positive effects of the intervention as the team improved their overall team performance by achieving more league points and finishing higher up in the league table compared to their previous season. Furthermore, findings from the process evaluation indicated that team members reported numerous perceived positive outcomes based on their experiences of the season-long psychosocial team resilience intervention. These included, for instance, enhanced togetherness, a more positive team environment, greater understanding of each other, and a perceived enhancement in both individual and team performance. The study highlighted that in the context of professional women's football, team resilience is a dynamic construct, subject to fluctuation across different stages of the season. While a season-long, multi-level intervention designed to enhance team resilience was implemented, the findings of the present study indicate that its measurable success is contingent upon a variety of contextual factors operating within the performance sport environment. Therefore, to comprehensively capture its temporal dynamics and obtain a

more nuanced understanding of team resilience trajectories, it is imperative to consider how multiple, complementary measures might be utilised.

# **Chapter Four: Tales from Delivering a Season Long Intervention in Professional Women's Football**

The previous chapter provided a comprehensive account of the development, implementation, and evaluation of a multi-level, season-long psychosocial team resilience intervention. At the individual level, there was no significant change in participants' resilience scores throughout the season, indicating that athletes were able to maintain their resilience despite experiencing ongoing stressors. However, at the team level, the resilience characteristics subscale of the CREST initially showed a positive trend early in the season, but this was followed by a significant decline. In addition, the team vulnerabilities subscale of the CREST revealed a statistically significant increase. Moreover, following the intervention, the team demonstrated enhanced overall performance compared to the previous season. The process evaluation of participants' experiences with the intervention highlighted perceived positive outcomes and identified key factors crucial for designing an effective intervention in high-performance sports. To gain a greater understanding of the experiences encountered while conducting a season-long research project in professional women's football, the present chapter employs confessional tales to reflect upon critical moments. These tales are illustrated by creative non-fiction vignettes, followed by a scholarly analysis that draws upon relevant literature.

## **4.1 Introduction**

We do not act on principles that hold for all times. We act as best we can at a particular time, guided by certain stories that speak to that time, and other people's dialogical affirmation that we have chosen the right stories.... The best any of us can do is to tell one another our stories of how we have made choices and set priorities. By remaining open to other people's

responses to our moral maturity and emotional honesty... we engage in the unfinalized dialogue of seeking the good. (Frank, 2004, pp. 191-192).

Sport psychology research has evolved since its original focus on objective findings gained from tightly controlled laboratory-based studies (J. M. Williams & Krane, 2015). Despite the contributions that early research no doubt made, those studies were criticised for lacking the complexities and richness of social situations and transferability to real-life settings (Martens, 1979). As a result, researchers started to conduct their studies in applied contexts, focusing on the effectiveness of psychological interventions to improve sport performance (S. R. Vealey, 2007). More recently, effective practitioner skills became a topic of investigations as they have the potential to impact upon the effectiveness of these psychological interventions (Fletcher & Maher, 2013; F. L. Gardner, 2001; Sharp & Hodge, 2011; Tod, 2007). For example, effective sport psychology practitioners are thought to demonstrate competence (Fletcher & Maher, 2013), relationship building skills (Tod, 2007; Tod et al., 2019), counselling skills (Sharp et al., 2015), as well as communication skills (Sharp & Hodge, 2011). In addition to the above-highlighted findings, Cropley et al. (2010) identified that self-reflection was regarded as an “inherent aspect of effective practice” (p. 9) by sport psychology practitioners.

*Reflective practice* is defined as a “purposeful and complex process that facilitates the examination of experience by questioning the whole self and our agency within the context of practice. This examination transforms experience into learning, which helps us to access, make sense of, and develop our knowledge-in-action to better understand and/or improve practice and the situation in which it occurs” (Knowles et al., 2014, p.10). According to McDougall et al. (2015), self-reflection can increase the effectiveness of the practitioner by developing their levels of self-awareness. Enhancing one’s level of self-awareness is vital in

high-performance sport settings as these environments can pose a meaningful risk for practitioner's ability to work in a congruent and authentic way (McDougall et al., 2015). To further highlight the importance of self-reflection, a case study presented by Nesti (2004) found that reflecting on issues in relation to the sport psychologist's own values and ethics was considered as the most important part of their work.

To better understand sport psychology practitioners' use of self-reflection, Wadsworth et al. (2021) conducted a systematic review of 73 studies. They identified that the focus of these reflections and the way in which sport psychologists engaged in the reflective process varied depending upon their level of experience. For example, while trainee sport psychologists reflected on the challenges of separating their personal and professional selves, experienced practitioners discussed not feeling the need to separate the two (Wadsworth et al., 2021). In addition, compared to trainee practitioners, experienced practitioners focused their reflections on identifying and building relationships with key stakeholders as a way of integrating as a member of support staff (Wadsworth et al., 2021). Indeed, actively engaging with self-reflection is considered as a vital process for supporting practitioners in sense making of their experiences in high-performance sport all whilst managing themselves and maintaining personal and professional effectiveness when faced with inevitable challenges (McDougall et al., 2015).

Given that high-performance sport environments have been described as ruthless, socially complex, and ridden with conflict and unique flows of power (Cruickshank & Collins, 2012; Eubank et al., 2014; McDougall et al., 2020), it is important to consider the type of challenges sport psychology practitioners may face when working within these contexts. Eubank et al. (2014) identified that sport psychology practitioners could experience issues with building relationships and establishing credibility, being under scrutiny, handling ethical challenges, dealing with interdepartmental communication issues and conflict, and

working within volatile and unpredictable cultures. Similarly, McDougall et al. (2015) identified challenges related to congruence, managing multiple relationships, the influence of elite sport cultures, and surviving and thriving in elite sporting environments. By interviewing sport psychologists working in men's football academies, Feddersen et al. (2023) identified difficulties relating to client-psychologist confidentiality, and normalised surveillance. Feddersen et al. (2023) further noted that a lack of understanding of sport psychology from individuals within the clubs can contribute to the perception that practitioners should deliver confidential information. Being aware of these difficulties could help sport psychology practitioners by preparing them prior to entering these intense high-performance environments, whilst the use of self-reflection can help practitioners process and learn from difficulties.

Although a substantial amount of reflective practice is a core component of both sport psychology training pathways within the United Kingdom, Stage 2 offered by the British Psychological Society (BPS) and SEPAR offered by The British Association of Sport and Exercise Sciences (BASES), often these reflections remain unpublished. Anderson et al. (2004) suggested that practitioners need to be willing to share the end product of their reflections to the wider community, and equally the community needs to be accepting of reflective accounts. These personal reflections of challenges that sport psychology practitioners encounter in high-performance environments “help to convey the human element of practitioner experience” (McDougall et al., 2015, p. 4). In addition, they help understand how sport psychology practitioners experience and manage the daily demands of the role (Rowley et al., 2020). There is now a considerable amount of published self-reflection articles (e.g., Godfrey & Winter, 2017; Holt & Streat, 2001; Jackson, 2020; Wadsworth et al., 2020) since the call by Anderson et al. (2004), however, studies exploring the experiences of researcher-practitioners are still rare.



Through sharing extracts from their field notes and reflective diary, Champ et al. (2020) illustrated their personal experience of being a researcher-practitioner in professional football. Some of these challenges included the weight of having a dual role preventing them from “being free” (p. 518), the research project being overlooked, disinterest in the research project, and maintaining confidentiality. In another study, Champ et al. (2021) focused on the first author’s experience as a female practitioner in a male-dominated environment and reflected on difficulties faced using confessional tale represented with creative non-fiction vignettes. For example, the researchers described instances where the first author encountered ageist attitudes, experienced a disconnect from their identity and handled intimidating authority. The way in which data is presented in both studies display the researchers’ raw experiences in a vulnerable and honest way through which an empathetic understanding of the practitioner could emerge. Whilst both studies are presented in unique ways, they convey reflections based on ethnographic enquiries. Therefore, there is a need to understand practitioner’s experiences specifically with research driven intervention delivery in these contexts.

While there is a significant body of literature on the challenges faced by practitioners in high-performance sport settings, there is limited research on the experiences of researcher-practitioners working in these contexts. One potential challenge that these individuals may face is identifying who the client is, determining their awareness of their own needs, and ensuring that their needs align with the aims and objectives of the research project. This is pivotal as Cropley et al. (2010) argued that a practitioner’s effectiveness is determined by their ability to meet the needs of the client. Therefore, researcher-practitioners may face unique challenges that can impact on the effectiveness of their research project.

To address the aforementioned research gap, this chapter aims to illuminate the challenges faced when delivering a season-long team resilience intervention in the context of

professional women's football. This will be achieved via a comprehensive reflection on critical moments experienced during the season. It is anticipated that these reflections will make a significant contribution to the existing body of literature and the field of applied practice, offering researcher-practitioners insight into the potential obstacles they may face should they decide to embark on similar season-long projects in high-performance sports.

## **4.2 Methods**

Researchers have been criticised for presenting tidy reports outlining what went well and keeping the learning that comes from messy realities of the research process private (Boman & Jevne, 2000; Sparkes, 2002). Confessional tales introduced by Van Maanen (1988) aim to demonstrate behind the scenes of the realist tale methodology and reveal dilemmas and tensions experienced throughout the research process (Sparkes, 2002). They exist in a symbiotic relationship to realist tales (Sparkes, 2002), complementing one another (Atkinson, 1991). Therefore, this confessional tale stands alongside the realist tale presented in chapter three of the season-long psychosocial team resilience intervention. It is an opportunity for myself to share “Here I am. This happened to me and this is how I felt, reacted, and coped. Walk in my shoes for a while” (Sparkes, 2002, p. 59). To personalise fieldwork experience, confessional tales include stories of conflict, ethical dilemmas, relational tensions, practical challenges, and compromised solutions (Bowles et al., 2021). By using confessional tales, the study can illuminate the challenges faced whilst delivering the season-long intervention. Confessional tales have increased in popularity within the sport setting (Bowles et al., 2021; Cavallerio et al., 2020; Champ et al., 2021; Dart, 2008), as they demonstrate their value in professional learning (Bowles et al., 2021). It is hoped that the narratives provided in this chapter serve as a useful resource for practitioners/researchers working in applied settings.

#### **4.2.1 Researcher Positioning**

A confessional tale places the researcher's experiences of fieldwork at the centre of the text (Van Maanen, 1988). Thus, it is important to give an account of my biographic positioning as it has the potential to influence the findings presented in this chapter (Champ, 2017; Littlewood, 2005). Since childhood, sports have been a central part of my life, teaching me valuable life lessons and shaping the core values I hold today. Born in Hungary, I have been influenced by the eastern European way of thinking and the importance of perseverance through difficulties. English being my second language, I embarked on the journey of higher education in the UK, as that is commonly thought to hold greater value than a degree from my own country. Through undergraduate and master's degrees, I discovered that sport psychology was a discipline that I saw myself having a career in. I could easily apply my own sporting background to the theories we were being taught, and with that, gain a greater understanding and explanation of some of my own experiences. Pursuing further professional training with the British Psychological Society, I enrolled on Stage 2 to gain registration with the Health & Care Professions Council (HCPC) and work independently as a sport and exercise psychologist. Halfway through the professional training, I started a full-time PhD programme to gain further experience and knowledge within the discipline.

At the start of the season-long intervention (detailed in chapter three), I was close to finishing my Stage 2 training to gain HCPC registration; more specifically, I handed in my last submission midway through the season. Thus, by then I had gained substantial experience as a trainee practitioner, and developed a clearer perspective of my emerging professional philosophy and the values that are important to me. Despite gaining experience working with sports teams and individual athletes, at the point of entry into the professional football club I had no previous experience in this context other than my pre-intervention study (detailed in chapter two). However, I was fortunate to have a great supervisory team

around me, including a Stage 2 supervisor on the applied elements of the project and supporting me with my developing professional philosophy; and my PhD supervisors whose guidance was imperative from managing relationships to data collection. In summary, my physical self of being a woman in my late twenties, white, able-bodied along with my accrued personal experiences stemming from cultural background, sporting history, and copious amount of time spent at university shape the way in which I see the world.

#### **4.2.2 Background Context**

As described in chapter three, the sample intervention team competed in the Barclays Women's Championship which is the second highest league in England. Interestingly, this was only the team's second season operating in a professional full-time capacity. The environment was characterised by traditional masculine qualities like power, intimidation, and hierarchy (Champ et al., 2021). Such qualities were demonstrated via commentaries, language, and behaviours. For instance, during my first week at the club, one of the coaches highlighted that "we know everyone in women's football". I sensed that the point here was to intimidate me, and as someone, who places high emphasis on making people feel welcomed, I did not know what make of it. In addition, where one of my core values is kindness, I was not sure how I could align with this coach. Similar experiences of operating in environments that did not match practitioners' values were reported in McDougall et al.'s (2015) study by sport psychologists. To highlight another example from this context, when a new physiotherapist intern started working with the team, the commentary followed a similar pattern: "I wonder how long she will last, f\*\*\*\*\* hell". I further felt that the deterministic generalisations that Meyerhoff (2014) suggested, such as men perceived as those of strength and power (i.e., masculine) and females perceived as those with sensitivity and emotionality were true. This was heightened by the role that sport psychology faced in this environment, a profession that has primarily been viewed as a feminine discipline (McDougall et al., 2020).

Thus, gender identities were seen to be placed upon us from other people in this environment as opposed to simply being formed from our own performances (Champ et al., 2021).

Furthermore, professional sports environments are demanding workplaces with high expectations not just for the athletes but also for the coaching and support staff (Champ et al., 2020; Mellalieu, 2017). Due to such intense working conditions, coaches at the club appeared to be overworked and stressed. Even when one of the coaches was ill, they said that “there are no sick days in football”. Similar to other professional sport organisations, the ‘bottom line’ within this particular context was winning (Wrisberg et al., 2012). With the potential financial consequences of losing, every team wants to improve their rate of success (Humara, 2000). Clarkson et al. (2023) noted that despite recent developments in women’s football, the current state of the sport remains financially precarious, with many clubs continuously incurring significant losses. The pressure to invest in talent and player wages in order to maintain on-pitch performance contributes to an inequitable distribution of resources within leagues. This situation disproportionately benefits larger and more established clubs with greater financial means and commercial appeal enabling them to pay higher wages and subsequently dominate the league. Additionally, Clarkson et al. (2023) found a direct correlation between the financial standing of clubs lower down in the league tables and their league position. Thus, these clubs rely heavily on their on-pitch performance to generate income, rather than benefiting from the financial security provided by corporate sponsorships or a secure fan base. However, this constant reach for winning places a huge amount of pressure on staff members. This difficulty was highlighted by one of the coaches as he suggested that “we get evaluated weekly”. This emphasises that their future at the club is uncertain and potentially based around the team’s performance. Such a comment resonated with me when after one of my Friday team resilience workshops with the team, they lost their match on the Sunday. Upon entering the club on Tuesday one of the coaches sarcastically

said, “your workshop has gone well then”. It is safe to say that I felt the blame that day for the team’s loss.

Moreover, uncertainty was demonstrated by a high turnover of staff members and players which is thought to be common in high-performance sports like football (Eubank et al., 2014). Only a few players and staff members spent more than a season at the club. I felt that stakeholders were always trying to find the new cutting edge. This has consequences for the way the culture of the club is shaped, as well as how team values are set and followed. Culture here is considered as a dynamic process characterised by the shared values, beliefs, expectations and practices across the members and generations of a defined group (Fletcher & Arnold, 2011; Kao & Cheng, 2005; Schein, 2004; Shteynberg, 2010; Zou et al., 2009). At the football club, culture involved comments such as ‘the way things are done around here’ (Schroeder, 2010, p.70) and ‘the way we do things here’ (Bailey et al., 2019, p.2).

#### **4.2.3 The Data**

Field note entries (Appendix 7) were completed on every occasion in which I was present at the club and included key events that took place on the day (Silverman, 2016). These field notes were brief and descriptive in nature detailing participants’ actions, conversations, and events (Saylor & Bogdan, 1998). Examples of field notes included, “45 minutes long team meeting preparing for the weekend as well as debriefing from the defeat over the weekend, the floor was open to ideas and solutions, the manager highlighted the process of learning” or simply “the questionnaires were completed after lunch”. At times, it was more practical to record these notes on my phone, an experience reported in other sport specific studies, where researchers enhance their capacity to take notes *in situ* without compromising their active involvement on the day (Bowles et al., 2021). This also allowed me to blend in more in the environment—that is, instead of walking around with a notepad, I could actively support the team’s warm-ups and training sessions and type notes in my

phone. These notes included for example, “one of the players (name not mentioned to protect anonymity) looks frustrated every time she misses – drop her a message after training” or “cold morning, quiet on the pitch during warm-up, got told off by one of the coaches for wearing a white hat – apparently it looks unprofessional”. According to Mulhall (2003), recording events as they take place, or shortly afterwards ensures that details of such event are not lost to memory. In addition to the field notes, I kept a reflective diary (Appendix 7) throughout my time with the organisation. Reflection is a metacognitive process in which individuals actively and purposefully consider their thoughts, feelings, beliefs, knowledge, responses, and experiences (Dewey, 1993). Therefore, the role of the diary was to reflect on my experiences of conducting research in the field, grappling with the practical aspects of data collection as well as various ethical and political issues (Sparkes, 1995, 2002). These entries were completed as soon as I had the opportunity to do so in a private space, but never more than 24 hours later or following the occurrence of a subsequent observation (Krane & Baird, 2005).

#### **4.2.4 Data Presentation**

The data collected chronologically through field notes and reflective diary were put into a 10-month timeline, encompassing the time I had spent in the studied context. Altogether the data from field notes and reflective diary added up to 73 pages of single-spaced text which enclosed approximately 600 hours spent in the environment. This timeline was then divided into each month and the diary entries were read and reread. Keeping the entries in a chronological order, they were organised around central themes and critical moments were noted. A ‘critical moment’ is an event which is “...large or small, intended or unintended, and might have a positive or negative effect on a person’s sense of self” (Nesti et al., 2012, p.25). These critical moments offered the starting points for the confessional tales.

Sparkes (2002) noted that “the details that matter in confessional tales are those that constitute the field experience of the author” (p. 58).

Data is presented using creative non-fiction vignettes which is a form of creative analytical practice (CAP, L. Richardson, 2000). CAP is an umbrella term that encapsulate different qualitative research practices and writings to ensure lived experienced is at the forefront (L. Richardson, 2000) and to show the layers of complexity in research findings (McMahon & McGannon, 2016). Interestingly, there has been a marked rise in the use of CAPs sport, exercise and performance psychology contexts. Specifically, from 2014 to 2023, 23 out of the 43 articles in Middleton et al.’s (2024) review were published in the last five years (2019 –2023). Creative non-fiction “tells a story using facts, but uses many of the techniques of fiction for its compelling qualities and emotional vibrancy” (Cheney, 2001, p.1). In other words, creative non-fiction “is deeply committed to the truth” (Caulley, 2008, p.426). The aim of using creative non-fiction vignettes here is to connect the reader on an emotional, behavioural, and embodied level to the story, enhancing empathetic understanding (Champ et al., 2021).

#### **4.2.5 Research Quality**

Notably, Sparkes (2002) argued that traditional approaches with orthodox scientific views that are tied to reliability, validity, and replicability are not suitable for judging creative non-fiction. Instead, Sparkes (2002) recommends that these studies are better judged by their authenticity or integrity, by their emotive force, aesthetic standards, their capacity to engage readers emotionally and by their verisimilitude. Whilst Smith et al. (2015) and Sparkes (2002) outlined different lists of criteria against which confessional tales and creative non-fiction could be judged against, they also argue that these lists should be treated as starting points, as criteria chosen will largely depend on the context and the purpose of the research as employed by Clayton and Coates (2019). Therefore, the reader is invited to judge the quality



of this work based on a) substantive contribution (e.g., does this piece contribute to our understanding of social life? (L. Richardson, 2000), b) expression of reality (e.g., does this text embody a fleshed out, embodied sense of lived experience? (L. Richardson, 2000), c) aesthetic merit (e.g., is the text artistically shaped, satisfying, complex and not boring? (L. Richardson, 2000), and d) incitement to action (e.g., does the research move the reader intellectually and emotionally? does it generate new questions? does it move people to act? (B. Smith et al., 2015).

First, the study was set out to make a *substantive contribution* towards understanding the lived experience of delivering a season-long intervention to a complex high-performance environment. In addition, the use of CAP and fictional writing techniques is novel within sport (Clarkson et al., 2019), therefore a substantive methodological contribution is hoped to have been made. Second, the vignettes are based on real events, and real conversations that were noted in the field notes and reflective diary and took place over the course of the season. Thus, it is hoped that the criteria of *expression of reality* is adequately achieved. Third, regarding *aesthetic merit*, the stories were developed using techniques of literacy writing to provide rich detail, capturing conversation, and including inner dialogues to ensure that it is accessible by academics, non-academics, and students alike (Clayton & Coates, 2019). Lastly, it is hoped that the stories presented in this chapter move individuals within these high-performance contexts to act by making these settings more welcoming and more effectively prepared for successful teamwork across the multiple disciplines, thus adequately meeting the *incitement to action* criteria.

#### **4.2.6 Ethical Considerations**

Considering procedural ethics, approval was sought from the University's ethics committee for the intervention and associated data collection methods. Confidentiality was ensured to the organisation by anonymising information regarding the team and the

individuals (Silverman, 2016). Sparkes (1998) noted that it may be challenging to protect the anonymity of high-profile participants in sports. Thus, any information that might lead to the identification of individuals has been disguised in the write-up in the form of creative non-fiction. Fictional representation offers a way to hide the identity of participants whilst still getting “to the heart of the situation without unduly breaking any confidences” (Angrosino, 1998, p.101).

In addition to procedural ethics, I monitored situational and relational ethics through ongoing reflexivity and discussions with my supervisors. Situational ethics refer to the day-to-day ethical matters that occur whilst conducting the research project (Guillemin & Gillam, 2004). It is identified as “the unpredictable, often subtle, yet ethically important moments that come up in the field” (Ellis, 2007, p.4). Throughout the season, I faced many moments otherwise termed as *microethics* (Komesaroff, 1995) arising from my role as an applied practitioner and researcher. For instance, there were times when coaches requested information that the athletes shared with me in confidence despite the fact that I had noted at the outset of the intervention that no such confidential information would be shared. According to Guillemin and Gillam (2004), moments like these are “issues about the ethical obligations a researcher has toward a research participant in terms of interacting with him or her in a humane, nonexploitative way while at the same time being mindful of one’s role as a researcher” (p.264). Relational ethics has been described by Slattery and Rapp (2003) as doing what is necessary to be “true to one’s character and responsible for one’s actions and their consequences on others” (p. 55). Thus, through relational ethics, researchers consider the dynamic and changing relationship between ourselves as researchers and our participants over time (Ellis, 2007). Throughout the season, I engaged in active listening, acted based on respect towards the participants, and considered a diversity of perspectives in a non-judgemental way (Champ et al., 2021; Ellis, 2007).

## 4.3 Findings and Discussion

### Out of Place

*The air had that distinct summer feeling when I arrived at the training ground. I hopped out of my car, grabbed my bag, and started to make my way to the women's training ground. It was fresh and peaceful but for the distant rumble of the groundkeepers' lawnmowers. I passed the empty canteen, the quiet pitches and arrived at the gates separating the men's and the women's training ground hoping that someone else would get there at the same time. No one was in sight. I took my phone out of my pocket and anxiously sent a text message to the staff group chat to see if someone could let me through. Minutes later, Matt, the kit person, appeared, teasing me about my ongoing struggle for access. "Still no pass, huh?" Sheepishly, I replied "Not yet" as I walked through the gates keeping my head down.*

*The ground began to swarm with people. Coaches rushed around meticulously planning their session, players received treatments and got taped, media content was filmed, formal and informal conversations took place, quick change of shoes and everyone was out on the pitch training, shouting, screaming, laughing, and crying. After the morning rush, the ground gradually emptied out, and I seized the opportunity to discuss ways of working together with Max, the team's physiotherapist. All of a sudden, Katie the manager, stormed through the doors, her presence commanding attention. She was covered up from head to toe in black wearing the team's long parka coat and had a default face of focus. With raised eyebrows and arms out wide, she bellowed at me, "What are you doing here??? You should be at the gym with the players!!!" "I am catching up with Max." I responded whilst sinking deep into the old red leather sofa in the communal area. "We need to work well together to support the injured players" I continued with a shaky voice, scratching the side of my neck.*

*“Who???” Katie’s eyes widened. “He is only here on trial! Get down to the gym!!!” She pointed at the door. With my pulse racing and face flushed, I swiftly grabbed my black water bottle and made my way down to the gym to conform to the manager’s expectations. As I walked out, I wondered; does she also tell other support staff members how to do their job?*

*Later on, in the warm and airless staff room, the coaches were reflecting on the day. I patiently waited for a break in the conversation and mustered up the courage to remind Katie about our scheduled research plan review. Her response was curt, granting me a mere five minutes of her time. Determined not to let it discourage me, swaying from side to side and certainly speaking faster than I normally would, I shared the outline of the intervention. Then came a big pause. I could feel my heart beating faster and my mouth getting drier with each passing moment of silence as I waited for her reaction. Finally, she began to speak. “No, we can’t do Fun Fridays, Fridays are for the staff to socialise ... Players go down for breakfast together, so they socialise enough. We can’t do reflection Tuesdays with you; the coaches already reflect on the weekend’s game with the players on that day... I don’t want you to run any team resilience workshops for the players yet... No, we can’t do that ... The only thing you can do is to get in touch with the captain and vice-captain to work something out, but I don’t want you to orchestrate it. The questionnaires are too long, and we don’t have enough pens.” She sighed, tilted her head and looked straight into my eyes. “You’ve just taken up 30 minutes of a professional football manager’s time”, abruptly ending the conversation, leaving me at a loss for words to respond. Grappling with the implications of her words, I couldn’t help but wonder about the disconnect between her vision and my efforts to contribute to the team’s success.*

I was looking forward to the opportunity to co-produce and deliver a season-long intervention with the team; however, as noted in chapter three and in this vignette, I

experienced significant challenges with buy-in at the start of the project. This could be as professional football environments tend to be sceptical of those with a university background and highly trained scientists (Cushion, 2001; Kelly & Waddington, 2006; Pain & Harwood, 2004). Furthermore, Pain and Harwood (2004) found that sport psychology within football academies was seen as having lower priority than performance-related specializations such as fitness training. According to R. King (2023), elite sport organisations are unlikely to break away from established routines, processes, and ways of doing things. This might be due to the importance placed on the outcomes in these environments, whereby the introduction of new approaches and/or methods can present significant risks (R. King, 2023). Consequently, similarly to experiences noted by Champ et al. (2020), key stakeholders involved in my project demonstrated ignorance, scepticism, and a lack of understanding towards the research at the start of my involvement with the team.

McDougall et al. (2015) identified that the ability to cultivate relationships within high-performance sport settings is invariably linked to the sport psychologist's ability to demonstrate value and evidence of worth to several key individuals within the organisation. On the other hand, individuals who do not demonstrate their value within the environment are likely to end up being frozen out and eventually rejected from the organisation (Kelly & Waddington, 2006). However, relation building was proven to be difficult in this context due to the lack of time individuals shown towards gaining an understanding of the project and myself ("you've just taken up 30 minutes of a professional football team's manager's time"). Gardner (2001) explains that earning trust and becoming an 'insider' in professional sports is a process, not an event. This process has ups and downs, characterised with frustration from knowing that there is much more to offer, but finding opportunities to prove it are sparse (F. L. Gardner, 2001). A clear demonstration of this process was not having a staff pass, essential to getting in and out of the training ground. Whilst it took me approximately four months to

receive my staff pass, other members of staff received theirs immediately following their first day. Experiences like these further contributed to feeling like an outsider, and that certain privileges had to be earned within this environment.

In addition to initial challenges with buy-in and integration, a lack of role clarity was evident in the early months around the team. Role clarity has been associated with increased role efficacy and performance in sport (Bray & Brawley, 2002), as well as increased job satisfaction at the workplace (Orgambídez & Almeida, 2020). On the other hand, studies demonstrated that role ambiguity can lead to a range of negative consequences, including an increase in stress-related symptoms on a behavioural, physiological, and psychological level (e.g., trouble sleeping, lack of appetite/loss of weight, and muscle twitches) within a study of military personnel (Day & Livingstone, 2001). In addition, role ambiguity was positively associated with emotional exhaustion through the drain on individual's emotional resources and energy in the workplace (Shin et al., 2020), and was significantly associated with depression in a meta-analysis of workplace (Schmidt et al., 2014). Such role ambiguity takes place when there is a lack of clarity, certainty, and/or predictability regarding the expectations associated with one's position (Kahn et al., 1964). In addition, research identified that practitioners who have not completely grasped their role in dynamic and complex environments find it challenging to implement their evidence-based methods, making it difficult to identify and/or communicate the impact of their discipline specific interventions (R. King, 2023; Walinga, 2017). In my reflections, I felt like nearly everyone on the team had different expectations towards my role within this environment, and with limited time available, it was difficult to identify and articulate at the beginning of the season. This was highlighted via the manager instructing me to go to the gym, while I was having a meaningful conversation with the team's physiotherapist. However, this problem is not unique to sport psychologists. High-performance sport faces a significant problem with high

turnover of staff who are in many cases young and poorly paid. According to R. King (2023), for many of these practitioners, it is easier to perform the basic competencies required in the role, instead of disagreeing, suggesting alternatives, or challenge the hierarchy.

In summary, this vignette demonstrates my early experiences at the club. I feared for the effectiveness of the intervention, the outcome of the research project and my ability to develop effective working relationships in an environment that seemed resistant to new ideas. In addition, I felt isolated from other staff members, and felt that I was being treated like an ‘outsider’ in the organisation. Larsen (2017) suggested, that successfully trying to integrate oneself into a professional football environment was like “bringing a knife to a gunfight” (p.7), with the knife signifying the practitioner’s knowledge and experience while the gun representing the ruthless and often volatile nature of high-performance sport environment. Indeed, I was acutely aware that change needed to take place to ensure the intervention’s effectiveness.

### **Navigating the Maze**

*“How is everyone doing this morning?” asked the manager cheerfully as she swung the door wide open into the staff room. She placed her bag on the floor, hung her gilet on the back of her chair, tied her hair into a low ponytail and listened to the coaching staff saying the very English ‘I’m well’ responses. I glanced around, wondering if anyone else would reciprocate the question. Some of them were engrossed in their phones. Some were focused on planning their sessions. Meanwhile perched on the sofa, I silently urged myself to seize the moment, to reciprocate the manager’s inquiry. “And how about you? How are you doing?” I cautiously inquired, not expecting much more than a cursory acknowledgement. To my surprise, with a wide smile on her face, Katie replied, “I had a great evening with my mum... We were laughing til we were crying” she chuckled as she proceeded to share a rare glimpse*

*into her world. I couldn't quite believe that I was having a personal conversation with her. Me! The person who struggled to even get a hello from her a few months ago! "Are you still up for some goal setting with the coaches this afternoon?", Katie reminded me, bringing me back down to reality. "Absolutely" I replied with a glimmer of excitement in my eyes. She actually remembered!*

*"I recall always having to remind her of the sessions we agreed on at the start of the season." I thought to myself. "So much happens here in a week, what we discuss on a Tuesday is most likely to be completely forgotten by Friday. Especially as I am not in on Wednesdays. It feels like I am missing so much on that day. Hold on, she didn't ask me to show her my plan for this session? This is strange ... she always wants to double check everything that I present to the players or staff. I always wondered why this is the case... I am clearly here to help the team. Even when I collated clips into a video where players demonstrated one of their non-negotiables, togetherness, in trainings and matches, she wanted to see it first. After every session delivered, she wanted the players feedback on how it went and if the team chaplain, Charlotte was there, her comment too. But I was never worried that they would give bad feedback. Charlotte and I worked closely together supporting individuals in the team, and the players were always so keen for these sessions."*

*"Are you going down for lunch now?" Lily, the team captain asked as I walked out of the staff room. "Yeah, want to walk with me?" I responded as I looked at her. Making our way towards the door she smiled and said, "Yeah. Let's go". After a brief discussion on how training has been, Lily changed the subject. "So" She started. "I spoke to the players and the sessions have been really good so far on Friday afternoons, I think you have pitched them really well." She continued. "Which non-negotiable is up next? Is it mentality?" She asked. "Yep." I responded. "I was thinking that we could make it quite simple, and get everyone in small groups of threes and fours again and ask them to answer three or four questions."*



*Something like, what does mentality mean for you, what does it look like on and off the pitch, how do you feel if somebody is not demonstrating these behaviours, - how can you support them?" I started pitching the ideas to her. "Yeah, I think keeping it simple and short is key with this group." Lily said as we momentarily paused our conversation queuing up for lunch. We continued our meeting during lunch, the two of us sitting separate from the rest of the team. I never liked sitting separate from everyone else, but I was happy to take the team captain's lead and it is not like we have any other time available to us to discuss the team resilience group sessions.*

*"Are you ready?" Katie asked as we all returned to the staff room after lunch. "Yes," I nodded. "Can you start by emphasizing the importance of setting goals to team resilience? Why is it relevant at this stage of the season?" she asked firmly. "Of course," I said in complete agreement. Fearing to hear the answer to my next question, I asked anyways. "How much time do I have?" "As long as you need." She assured me. "This must be really important to her..." I thought to myself.*

*It is strange how a single sentence can instantly put someone at ease. I started the meeting by asking everyone to jot down their individual goals for the season, and then worked backwards to determine what they wanted to achieve by Christmas. The manager and myself working together to drive the session, a real demonstration of collaboration. Individual goals were set, team goals were agreed, the barriers were discussed, and action plans were created. At the end of the session Katie placed her hand on my left shoulder, "Thank you for this" she smiled. "For breaking it all down... it was really useful for the coaching staff." As the coaches dispersed, changing, and engaging in their own conversations, I sank into the black sofa in the staff room. Exhausted, but feeling valued and appreciated. What a day it had been.*

The initial resistance to implement sport psychology slowly began to change throughout the first part of the season. Gardner (2001) explained that “just as rookie athletes often feel as though they are on the outside looking in, waiting for their moment to shine, so too will the new team psychologist as he or she awaits the first opportunity to use his or her skills” (p.35). Whilst the above example in the vignette is not the first time I was implementing the team resilience intervention content with the team, it was the first time the manager had asked me to work specifically with the staff; thus, it certainly felt like a critical moment. The change in the perception of the team resilience intervention might be best explained by the concept of organisational readiness for change.

Organisational readiness for change is regarded as an essential antecedent of successful adoption and implementation of evidence-based practices, and programmes (Weiner, 2020). It refers to “organisational members change commitment and change efficacy to implement organisational change” (Weiner, 2009, p.2). Readiness is a multi-level and multi-faceted construct described by a state of being psychologically (willing) and behaviourally (able) prepared to take action (Weiner, 2009). While individual readiness for change is a widely discussed subject, with theories such as the Transtheoretical Model of Change (TTM; Prochaska & DiClemente, 1984, 1986, 1992) highlighting the steps individuals go through to change their habits, organisational readiness on the other hand, has not been extensively researched and limited empirical studies assess such readiness prior to entering a context.

As the team did not have access to a sport psychologist before, and the manager has managed 20 years without a sport psychologist, change needed to take place in order to embed sport psychology within their practices. Herscovitch and Meyer (2002) suggested that organisational members can implement change for different reasons, such as because they want to (they value the change), because they have to (they have little choice), or because

they ought to (they feel obliged). However, members also need to feel able to implement change, reflecting their change efficacy (can we do this?) (Bandura, 1997). These concepts are interrelated, where lack of confidence can impair one's motivation, whereas highly motivated individuals might still be unsure about their ability to successfully implement certain practices (Bandura, 1997). In addition, according to Roos and Nilsson (2020), motivation, psychological safety, knowledge creation, cohesion, and engagement all impact readiness for change. In sport, leadership was identified as a determining factor for organisational change (Amis et al., 2004). More specifically, the leader's interests, motivation to change and capacity to initiate change influenced whether they acted as either a driving or resisting force in the change process (Amis et al., 2004). Therefore, the manager needed to see the value in the addition to of the sport psychology intervention to her already established football programme in order for her to be motivated to implement the change.

Increasing the manager's perception in the value of the team resilience intervention was achieved via several ways over the course of several months. According to Woolway and Harwood (2019) within elite sport, athletic directors (Wilson et al., 2009), administrators, coaches, team captains (Sands, 2002) and organisational presidents (Wrisberg et al., 2012) affect the future of sport psychology at the specific team. This is due to the control they have over access to other group members, group activities, and sources of information (LeCompte & Schensul, 1999). Therefore, to start with, I drew on the players readiness for change, more specifically the team captain's interest in the team resilience intervention. Her inquisitiveness and openness stemmed from her own positive experiences of working with a sport psychologist in her previous club. Thus, any sessions and workshops were initially co-produced with the captain, to ensure their feasibility and effectiveness. Though these required the manager's approval prior to their implementation to the players, they were always followed by a debrief where she asked the team captain and individuals participating in these

sessions for feedback. Demonstrating the value the sessions brought to the players, I was able to negotiate an approximately 30 minutes long timeslot almost every Friday which was a significant step-up from the initial 10 minutes that I was given in pre-season. Therefore, it is likely that the continuous reinforcement of the value of the intervention increased the manager's motivation and competence to implement more of the team resilience intervention, including group sessions to members of staff.

To further increase the uptake of the intervention, I continued with building relationships within the team of players and staff members. Developing rapport and getting to know one's clients are important determinants for the effectiveness of consultancy (Hemmings & Holder, 2009; Katz & Hemmings, 2009). I tried achieving this by focusing on the important characteristics of sport psychology practitioners such as high interpersonal skills including empathy and approachability (Campbell, 2009; Lubker et al., 2008; Wolloway & Harwood, 2020). Whilst this was not easy at times to persist with, I slowly began to notice a change in individuals' levels of openness towards myself, demonstrated by the manager's openness to share her personal anecdotes with me.

In summary, this vignette demonstrates a clear change in the organisation's readiness for change and the impact this had on me. I started to feel like a valued member of the team where the team resilience intervention along with my ideas, suggestions, and evidence-based practices were being considered. In addition, I noticed a positive improvement in the quality of my relationship with the manager and coaching staff which had a direct impact on my well-being at work.

### **The Confidentiality Conundrum**

*I'm nestled into a black beanbag, cradling a cup of coffee, when Ellie sits down next to me. "How are you feeling today?" I probed gently, curious if she had settled beside me to*

*discuss something particular or simply to catch up on the usual chatter. “Tired.” She replied, her gaze fixed on the floor. “You know I was telling you about the house my boyfriend and I wanted to buy?” “Yes” I nodded. “I am struggling to commit because my contract expires at the end of the season, and I don’t know if I am staying. There is no point buying a house in this area if I don’t get my contract renewed.” She sighed deeply. “It sounds like you have a lot on your mind.” I said, looking at her. “And I am just so frustrated we lost this weekend. We should be practicing 1v1’s with actual people as opposed to with manikins.” She finally met my eyes, searching for a sign that I shared her thoughts. “This is a really interesting observation, Ellie; I wonder what the coaching staff would think? Might be worth sharing this with them.” I encouraged her. “It’s not worth it, they won’t listen anyways” She responded, fixing her gaze on the ground again. “If you want, I can share these ideas with them anonymously, without mentioning your name?” I prodded gently. “Yeah, sure that could work, thank you.” Ellie replied with a faint smile.*

*“Morning Ellie” said Anthony, the S&C coach. “How are you doing?” he continued as if we were not in the middle of a private conversation. Deciding to leave them to it, I got up and made my way to the physio room. “Is it ok for me to come in?” I asked before opening the door. “Yeah sure.” said Max. “I can’t believe, you won’t come on holiday with me” echoed through the room as I entered. “I can’t,” came the reply, laden with the weight of unfinished university assignments and other obligations. “Ughhh you are impossible!!” I heard, followed by the door flinging open as Daisy stormed out, continuing to rant in the hallway. “No, wait for me.” came the response as Ava quickly jumped off the treatment bed and hurried after her. “What was this about?” I asked Max. “A little more than usual drama between those two. Maybe you could speak to each of them one-to-one?” he suggested, his voice carrying a hint of concern. “Sure. I might check with Charlotte first to see if she has*

*any further information.” I responded, acknowledging the potential for further understanding from different sources such as from the team’s chaplain.*

*“Oh hi Charlotte!” I greeted her warmly. “When you get a moment, can we please discuss something in confidence?” “Of course, shall we step outside now?” She responded, her tone gentle and understanding. We walked around the pitches and formulated a case based on our shared understanding. “I think we should raise this in the MDT meeting this afternoon to see if anyone had noticed anything unusual.” I suggested, before we made our way back inside the building.*

*“Everyone, please gather around,” announced Katie as the team returned to the building after the training session. “Unfortunately, there’s no hot water in the kitchen, so they won’t be able to prepare and serve lunch for us. You can all head home; there won’t be any gym session or sports psychology activities this afternoon.” Hurrying into the staff room, she gathered every staff member around. “I’m going to order some pizzas,” she declared, her voice decisive, “and let’s have our MDT meeting while we wait for them arrive.” “I noticed you had a conversation with Ellie this morning. Is she okay?” she inquired, her gaze turning towards me. ““Just a moment,” she held up her finger, then turned to order. “Yes please. Can we have 2 pepperoni pizzas, 2 margarita pizzas, and 2 chicken supreme pizzas? Yes, all large.”*

Working within a high-performance sporting environment presented unique challenges regarding the boundaries of traditional counselling, such as time and space (i.e., an hour in an office was not available) (Andersen et al., 2001; McCann, 2000). As a result, I often found myself in situations where I was asked to share confidential information, either directly or indirectly, intentionally, or unintentionally. For instance, as highlighted in the vignette, informal conversations and one-to-one interactions often occurred in casual areas

such as on beanbags and on sofas in communal spaces, during walks to the canteen, during lunch, or on the football pitches. This aligns with reports from other practitioners who noted that sessions may take place in less-than-ideal locations, such as locker rooms or playing fields (Andersen et al., 2001; McCann, 2000). The concern of being overheard during these conversations is a common issue of practitioners (Andersen et al., 2001). Although I took measures to ensure that players felt comfortable and that other team members were not in close proximity, it was apparent that my interactions with them were still observed by others. Unfortunately, despite my efforts to change the perception of sport psychology within the club, there remained a stigma associated with seeking help. Players who sought support were often labelled as having ‘problems’ (Dean et al., 2022; Konter et al., 2019). In order to address this, I made a point of engaging in casual conversations such as coffee chats and presented myself as approachable to both players and staff members. My hope was that by doing so, sport psychology would become more accepted, and interactions with me would be seen as normal and not out of the ordinary.

Confidentiality has been regarded as a fundamental aspect of the role of sport and exercise psychologists (Zaro et al., 1993) and it is defined as “the cornerstone of trust on which the therapeutic relationship is built, [and as such], clients must understand the limitations to their confidentiality if they are to make informed decisions about whether to enter into treatment and whether to disclose personal information during sessions” (Glosoff et al., 1997, p.573). Nonetheless, as highlighted by Andersen et al. (2001) and Sharp and Hodge (2011), maintaining confidentiality can pose significant challenges for sport and exercise psychologists working in high-performance sport environments. In the field of independent sport psychology practice, concerns regarding confidentiality are rarely called into question, as confidentiality can generally be upheld unless specific circumstances, such as the duty to warn, arise (Moore, 2003). However, when sport psychology practitioners are employed by a

sport organisation, they cannot assume that the standard rules of confidentiality apply when working with athletes who fall under the authority of the organisation. It's imperative to bear in mind that sport psychologists must not only prioritise the individual seeking their support but also give precedence to the organisation's overall mission, purpose, and goals (Moore, 2003).

Therefore, when Ellie highlighted the need for more realistic pressure training, an important part of a team resilience intervention, decisions needed to be made regarding sharing this information with the coaches. At the time of the intervention delivery, I was in the final months of Stage 2 training, thus strictly adhering to the BPS Code of Ethics and Conduct. This code requires all members to act in accordance with its guidelines (The British Psychological Society, 2021), including upholding confidentiality. Therefore, I first encouraged Ellie to personally approach the coaches. However, when she was unwilling to do so, I suggested sharing her ideas anonymously on her behalf. This approach allowed me to maintain the athlete's confidentiality while preserving her trust. This strategy is commonly utilised by sport psychology practitioners to uphold confidentiality, foster an ongoing, trusting relationship between the practitioner and the athlete, and still support the team's objectives.

In their study, Cook and Fletcher (2017) conducted interviews with 12 swimming coaches and senior personnel to explore the varying perspectives on confidentiality. The findings revealed inconsistencies in how confidentiality was perceived among the participants. Some individuals expressed a preference for an open and transparent relationship, whereby the sport psychologist can disclose details of their conversations with athletes. Conversely, some coaches believed that maintaining confidentiality between the sport psychologist and athletes would enhance the effectiveness of their work. However, it is worth noting that collaboration and knowledge sharing can facilitate a comprehensive case



formulation and the development of a coordinated action plan, particularly within an MDT setting in a sport organisation (Bickley et al., 2016; Feddersen et al., 2023). This approach would ultimately result in more holistic support for athletes. Nevertheless, it is unfortunate that despite emphasising the importance of confidentiality to all parties attending such meetings, there is still a possibility of individuals sharing confidential information with others (Feddersen et al., 2023).

In another example provided in the vignette, I made the decision to initially consult the chaplain about my concerns regarding the relationship between two players. This choice was based on our pre-existing understanding of confidentiality and the trust I had in her. Through our discussion, we utilised the Social Exchange Theory (Blau, 1964; Gouldner, 1960; Homans, 1958; Thibaut & Kelley, 1959) to gain a clearer understanding of the friendship between the two individuals involved. This enhanced our ability to make an informed decision about involving the MDT and effectively communicate our concerns to them. Bringing up the issue during the MDT meeting was an anxiety-inducing experience. I found myself questioning the accuracy of my observations. Additionally, I worried about being overly cautious and the potential negative impact it could have on the athlete's trust in me. Furthermore, I was concerned that the athlete may share this information with the rest of the team, subsequently affecting their trust in me as well. Nevertheless, after discussing the situation with the chaplain, I was reassured that my decision was the correct one. During the meeting, I shared my observations regarding the changes in the athlete's behaviour and presented a psychologically informed case. To guide our discussion, we followed the team formulation steps suggested by Bickley et al. (2016). The purpose of the formulation process was to foster a shared understanding (Bickley et al., 2016). Team formulation is considered a best practice according to the British Psychological Society, (2011), and has proven effective in complex settings as mental health and criminal justice (L. Jackman, 2013; Rogers et al.,

2015). During the MDT meeting, each member of the team shared their own observation. For example, some reported that Daisy moved to Ava's changing room which is prohibited for players. The physiotherapist also provided insights, noting similar behaviours from coaches' observations. Subsequently, we developed an action plan (Bickley et al., 2016) outlining the steps to support the players. Following the meeting, the manager expressed appreciation for the timing of our intervention, stating, "this was timed to perfection". It turned out that the coaches were already aware of the situation but were unable to formulate a case. This acknowledgement made me feel valued and reinforced the contribution I made to the team. As a result, I felt more confident in my role and had greater trust in my own judgement.

In conclusion, this vignette highlights critical moments encountered pertaining to confidentiality during my time with the football team. In the absence of a private room, one-to-one sessions would take place in less-than-ideal locations and circumstances. There were concerns that other team members could inadvertently overhear our conversations, or that the coaching staff would inquire about the nature of these conversations. However, in other instances the involvement of the MDT in case formulation and the creation of support plans were deemed crucial in order to provide athletes with the best possible support.

### **Managing Role Overlaps**

*"Listen up everyone" said Tom, the general manager with his hands casually tucked in his jeans pockets. He looked around the room filled with players and staff members, making sure that he had everyone's attention. "Before the start of your meeting I would like to introduce two full-time members of staff." He ushered them into the room. "This is Jack who will be helping me with operations, and Nathan, who is here as a life coach." He announced. "Please make them feel comfortable." Following a brief scan of the room to see if people are still paying attention to him, he lowered his gaze, took his phone out of his*

*pocket, and rushed out of the room, leaving the two new members of staff standing there somewhat awkwardly. Rushing out of the room is not unlike him though, he never spent much time in the women's training ground or around the team.*

*"A life coach?" I caught myself digesting the new information whilst sat on a blue exercise ball in the back of the room surrounded by the rest of the support staff members. "What exactly would his responsibilities entail?" I continued the train of thoughts as he introduced himself to the group. Interrupting my thinking, a player approached me after the meeting, looking confused. "So, is Nathan basically doing the same job as you, but ... unqualified?" I took a sip of my coffee that has gone cold since I made it to give myself some time to gather my messy thoughts. "How should I respond to this question in a professional manner?", I wondered. "Um... what is important ... is that we are all here to support you guys..." I began to mutter, but my words were cut off by another player rushing over. "Ah I don't get enough time for my treatments anymore; it is not fair!!" I knew what this was all about. With the end of the season approaching, Katie highlighted during the previous MDT meeting that our main focus is on healthy players. I let the conversation carry on between the two of them before excusing myself to head into the staff room where I hoped to gain clarity on our respective roles and responsibilities now that we also have a life coach.*

*As I entered the room, I immediately sensed the tension in the air. "The pitch is completely waterlogged; you can't train on it. You will have to go to the dome" declared the groundskeeper seemingly unfazed. "No, we will not do that. Absolutely not." responded Katie firmly "I bet you there is a suitable corner on it. We are staying here". With a sigh, the groundskeeper exited the room.*

*The manager glanced at me as she put on her coat, preparing to head out and inspect the pitch herself. "Adrienn, can you and Nathan work together?" she asked, not waiting for a response. "Nathan, Adrienn has been working with the players doing group level work since*

*the beginning of the season, focusing on their resilience so she knows what works with this group. Maybe you guys can sit down with Charlotte and figure out each other's roles and responsibilities." The door closed and the room fell silent. "I don't know much about life coaches" I thought to myself. "And we already have a team chaplain, Charlotte, that players can go to for support, and myself. Maybe finding out about his qualifications will help us position ourselves in the team, seeing as we have been tasked with it..."*

*"What qualifications do you have?" I asked Nathan while leaning against a desk in the staff room. "None." he replied with a shoulder shrug. "You don't need any qualifications to be a life coach. I have lots of experience in football ..." he smirked, instantly making me feel inferior, leaving me speechless. "I came across a video online," he broke the silence. I looked into his eyes waiting to hear what this is about. "I think we should have the players watch it next week as a team-building exercise. It will take about an hour." He said with his chest out and chin high. "An hour?" I frowned and screamed internally. It took me months to progress from 10 minutes to 30 minutes. "Team-level work?" I thought that was my role and my area of expertise?" I questioned to myself.*

This vignette highlights the effects of increased pressure that was evident throughout the second half of the season, particularly during a period of fixture congestion. For instance, the injured players felt frustrated with suddenly being placed behind the 'healthy players' in the order of the treatments. These feelings likely transferred onto each other and impacted the mood within the team, through a process called emotional contagion (Schoenewolf, 1990). Severe weather conditions (heavy rain, snow) coupled with inadequate facilities made training difficult at times and even resulted with games being rescheduled causing fixture congestion later in the season. The general manager and the manager did not always see eye-to-eye which resulted in the appointment of staff members that the coaching staff were not

aware of (e.g., life coach). Due to the fixture congestion and the appointment of a life coach, my intervention had to be paused on the manager's request to "not overload the players". All these events contributed to the development of increased conflict within the team and my critical moment outlined in this vignette.

Team conflict is made up of task and relationship components and it is defined as a "process in which one party perceives that its interests are being opposed or negatively affected by another party" (Wall & Callister, 1995, p.517). Task conflict refers to "disagreement among group members about the content of the tasks being performed, including differences in viewpoints, ideas, and opinions", whereas relationship conflict refers to the "interpersonal incompatibility among members, which typically includes tension, animosity, and annoyance among members within a group" (Jehn, 1995, p.258). Leo et al. (2015) found that team conflict including task and relationship conflict significantly affected the collective efficacy of a sport team. As members of a multi-disciplinary team within a sports club are also expected to work collaboratively as a team, any conflict that takes place is worth noting as it may influence performance outcomes (DeChurch et al., 2013; O'Neill & McLarnon, 2018). The more disciplines are involved within a sport team's multi-disciplinary team, the more complex problems become regarding conflict (Collins et al., 1999). For instance, confidentiality and the disciplines differing codes of conduct were previously noted as potential areas of such conflict (Collins et al., 1999). In addition, competing views, beliefs, understanding of methods across different disciplines can further increase the complexity of working in a multi-disciplinary team (Fiore et al., 2008). Such competing views and beliefs were evident from the moment I met the life coach. Whilst I have gone through rigorous training to become a qualified sport and exercise psychologist, he demonstrated no qualifications and no codes of conduct to adhere to; we, thus, experienced both task and relationship conflict.

Individuals with lack of relevant qualifications is one of the greatest challenges of our field. For instance, often coaches, and other persons within the athletes' support system, perform or believe to be performing 'sport psychology' (J. Martin, 2020). For example, Pain and Harwood (2004) found that football coaches and directors viewed sport psychology as "little more than common sense," thought that "there's good psychology without a psychologist," and that they "use sport psychology unknowingly" (p. 818). These coaches and managers might perceive their own psychological understanding to be far superior to that of the sport psychology practitioner (Eubank et al., 2014). Ravizza (1988) in his influential paper argued that the most significant barrier sport psychologists face is the negative connotation attached to the term sport psychology: "on some level there is an awareness that principles of psychology involve examination of vulnerabilities and weakness; this threatens all but the most secure and confident athletes" (p.244). Nevertheless, unqualified individuals with limited knowledge of sport psychology continue to operate in high-performance sport (Eubank et al., 2014), baring negative consequences on our field and practitioners. Worryingly, unqualified individuals providing sport psychology support are at risk of mishandling the mental health of athletes (Baker, 2014).

The British Psychological Society's Code of Ethics and Conduct (The British Psychological Society, 2021) highlights that "members value their responsibilities to persons and peoples, to the general public, and to the profession and science of psychology, including the avoidance of harm and the prevention of misuse or abuse of their contribution to society" (p. 7). Therefore, I felt like it was my professional responsibility to raise an awareness of this issue, which was particularly challenging at a time when the team was under immense amount of pressure. I decided to first discuss my concerns with the assistant manager as I considered him my ally from the start. He not only agreed with my concerns but suggested that they will conduct a meeting amongst the managers to discuss. However, the next day the

manager had instructed the life coach, the team chaplain, and myself to “sort it out between us” and to feedback what each of our distinct roles and responsibilities would entail once agreed. Meanwhile, following the one and only group session conducted by the life coach, the manager had pulled all psychosocial support including my team resilience intervention to “not overload the players”. This may have impacted the effectiveness of the team level group sessions in the team resilience intervention as my work within the team was reduced to one-to-one support. As this took place towards the end of the season, we were never able to come to our agreement regarding our roles and responsibilities. Quartiroli and Wagstaff (2024) found that the inadequate regulation of unqualified individuals had a significant impact on sport psychology practitioners’ identity formation. Similarly, in the example provided, the hiring of an unqualified individual into a full-time role not only impacted on the design of the team resilience intervention but also on my developing identity as a sport psychology practitioner.

However, it is important to note, that there are several professions whose roles and responsibilities share similarities to those of sport psychologists, but manage to coexist effectively. For example, individuals occupying roles in player care, performance lifestyle support and chaplaincy. To illustrate, sports chaplains comprise of individuals, both lay and ordained, who provide spiritual and pastoral care (A. King et al., 2020). There is often a degree of overlap between the role of a chaplain and a sport psychologist due to their shared concern for athlete wellbeing (Oliver & Parker, 2019). However, while chaplains can offer spiritual support, sport psychologists primarily focus on enhancing of player performance. Gamble et al. (2013) found that the success of the collaborative relationship between the chaplain and the sport psychologist relied on a mutual understanding and respect for each other’s expertise as well as an appreciation for the potential overlap in their roles. Indeed, the team’s chaplain and I had a strong working relationship throughout the season, supporting

each other's work. However, Gamble et al. (2013) also noted that the effectiveness of these roles hinged on clear communication from the management team to the players regarding the distinct roles and responsibilities of these individuals (Gamble et al., 2013). Unfortunately, when a life coach was introduced, the management team failed to establish, identify, and communicate our specific roles and responsibilities, leading to significant confusion among everyone and posing challenges to the effectiveness of our roles. Moreover, another considerable challenge in this case was the acceptance of an unqualified individual into our multi-disciplinary team who wanted to do the role of a sport psychologist.

In summary, this critical moment occurred during a period when I had established a routine of delivering the team resilience intervention and providing ongoing psychological support to the team. My role had been solidified, and I gained confidence which contributed to the development of my professional identity. However, the improper introduction and management of a new personnel who shared similar roles to myself presented a significant challenge. This led to a conflict in roles and posed a threat to the successful implementation of the psychosocial team resilience intervention.

#### **4.4 Further Reflections**

This study aimed to provide confessional tales from delivering a season-long psychosocial intervention within women's professional football illustrated by creative non-fiction vignettes. More specifically, I reflected on four critical moments that were pivotal in my journey with the participating intervention team. Whilst each critical moment focused on a separate challenge, they are nevertheless interlinked. These experiences encompassed feeling out of place, navigating the maze, the confidentiality conundrum, and managing role overlaps.

High-performance sport environments are characterised by being a conservative and closed culture that resist change and is suspicious of outsiders, new regimes, and approaches



(Eubank et al., 2014). This posed a significant challenge during the team resilience intervention at the beginning of the season. Although the manager agreed to participate in the project and to facilitate it among the team, when I arrived this could not have been any different. Gardner (1995) described professional sports as closed and paranoid systems where individuals are classified as either insiders or outsiders. It is likely that due to my university background and lack of specific experience in football, I felt like I was classified as an outsider, which made it more difficult for me to effectively embed the team resilience intervention. Moreover, the perceived limited recognition of the sport psychology profession among the individuals at the club, coupled with the inaccurate public perception of the profession, hindered the formation of my professional identity during this period (Quartiroli & Wagstaff, 2024). In addition, the perceived lack of time devoted to understanding and co-producing the project at the start of the season resulted in a lack of clarity regarding my role thereby further negatively impacting the perceived effectiveness of the intervention.

To overcome these difficulties, I persisted with building relationships by demonstrating effective practitioner skills such as empathy and understanding. However, it is worth noting that any progress made took place over several months. In addition, I worked through, and with, individuals within the organisation who were more ready to change (e.g., players, team captain, assistant manager) to increase buy-in and for it to have a knock-on effect to others within the organisation. Whilst I took the manager's original interest in the study as a sign for readiness, as detailed above, when I arrived in preseason, the team was not ready to implement change yet (i.e., the team resilience intervention). Similarly, this process was lengthy and gruelling at times, however it was due to perseverance that key stakeholders such as the manager continuously demonstrated more openness towards the intervention as the season progressed and staff members started to embrace the addition of sport psychology.

Relationship building was sometimes hindered by confidentiality challenges during the season, which in some cases contributed to creating a perceived invisible wall between staff members (Feddersen et al., 2023). Indeed, Moore (2003) noted, that working within an MDT and navigating multiple relationships can be difficult for a sport psychologist in performance contexts. However, through the application of team formulation, I was able to not only demonstrate the value of sport psychology to the coaching staff but also utilise it as a tool to facilitate communication and collaborating among us. Nevertheless, in certain instances, although the process of case formulation proved successful (e.g., Daisy and Ava), subsequent evaluations of the established action plans exhibited a lack of consistency. Bickley et al. (2016) acknowledged that while evaluation should be an ongoing process, it becomes particularly challenging in demanding environments where crises and daily demands often take precedence, particularly when the problem is resolved or diminishes over time.

While I continued to gain confidence as the season progressed, this development was disrupted during the latter half of the season due to a particularly challenging period for the team. Conflict within the club began to escalate as the pursuit of the top position in the league intensified, and all members experienced immense pressure during this period. A critical moment in this context was the introduction of an unqualified life coach who was hired as a full-time staff member. This presented several difficulties including a conflict with my personal values, an impact on my professional identity formation, and concerns regarding the perceived effectiveness of the team resilience intervention. Although the team resilience intervention was conducted with a women's football team, the environment was nonetheless predominantly male dominated, characterised by the acceptance of traditional banter and the embrace of a "locker room mentality" (Roper, 2008, p. 415). Within the realm of sports, men are often assigned to the most powerful positions, while women tend to occupy less

influential roles (Acosta & Carpenter, 2004). Such perceptions may explain why a male individual, despite possessing no qualifications other than football experience, was able to gain entry and access more swiftly than myself as a female sport psychologist.

While it is acknowledged that it is not possible to encompass every challenge and critical moment encountered during the course of this research, it is hoped that those provided continue to expand on our understanding of researcher-practitioner's experiences in delivering interventions within this dynamic and challenging context. By drawing attention to both the predictable and unforeseen obstacles, as well as the strategies employed to overcome them, this chapter aimed to enrich the ongoing discourse around the dynamic and often volatile nature of researcher-practitioner work, with the hope that it will inspire further investigation and reflection in future studies.

#### **4.4.1 Applied Implications**

There are several applied implications that can be gathered from the findings of this chapter. Firstly, the challenge of recruiting participants for studies often leads researchers to express gratitude for any individuals who exhibit an interest in their research projects. However, based on the study's findings it would be imperative for researchers to conduct preliminary assessments of the organisation's readiness for change prior to intervention implementation. This assessment may be carried out through various methods, including questionnaires, formal and/or informal interviews, or multiple meetings preceding the commencement of the research project. In my own experience, I engaged in several email exchanges and two online meetings with key stakeholders who demonstrated interest; nonetheless, a more comprehensive evaluation would have proven beneficial. Alternatively, researchers might find it advantageous to immerse themselves in the context prior to the intervention implementation. Such immersion could enhance the clarity of individual roles, which may be crucial for the effectiveness of an intervention in high-performance sport.

Furthermore, these strategies may facilitate the perception of researchers and practitioners as ‘insiders,’ potentially exerting a positive influence on the proposed research project.

Furthermore, it is vital for sport psychologists to engage in open discussions about the ethical limitations of their work prior to providing their services. This ensures that all parties involved have clear and realistic expectations, and a thorough understanding of the acceptable roles and professional boundaries of the sport psychologist (Moore, 2003). For example, it is essential to explicitly communicate the boundaries of confidentiality to both players and staff members at the outset of their involvement with their respective teams. In addition, sport psychologists should bear in mind that coaches and managers may challenge confidentiality due to the immense pressure they face in meeting performance targets (Feddersen et al., 2023). Additionally, it is common in football for some individuals to believe that they should be privy to all information (Feddersen et al., 2023), which is potentially made worse by the wide range of data available to coaches, such as GPS data, body fat percentage, and dietary information. Consequently, coaches will likely want to be aware of any additional information, including psychological insights, to aid in the decision-making process regarding training load and starting eleven. Adhering consistently to the boundaries of confidentiality will likely alleviate the pressure to disclose confidential information. Another strategy to address concerns related to the confidentiality of sport psychology services is to involve the coaches in the utilization of such services. By directly experiencing the advantages of sport psychology support, coaches can effectively dispel any lingering stigma or misunderstandings surrounding this field.

Moreover, practitioners and researchers are encouraged to find their allies within the high-performance context to increase the effectiveness of their work and to start the process of ‘buy-in’. I found my ally in the assistant manager as he welcomed me from the start. His personality and the values he held were different from everyone else’s, and he did not seem

to give in to power plays that I would so often see around the club. In an environment where players and staff members were discussed using questionable language in the staff room, he never directed any obstructive comment towards anyone, and I was able to find comfort in that. He always asked about life outside of work and was open to feedback and learning more about sport psychology. In addition to the assistant manager, I also considered certain players as my allies as they demonstrated interest in the team resilience intervention. More specifically, I developed a great relationship with the captain as we co-produced the team resilience activities and workshops, and this project could not have been possible without her enthusiasm, openness, and engagement. In addition to finding allies, practitioners and researchers are encouraged to persevere with building relationships with key stakeholders. This might be achieved by finding shared interests, to which allies could be of significant help.

Lastly, practitioners and researchers are encouraged to engage in self-care to manage the complexities of operating in such a challenging context. Self-care activities are thought to be necessary for sport psychology professionals to maintain a standard of physical, social, emotional, and psychological well-being throughout their career (Lawson, 2007; Quartiroli, Wagstaff, & Thelwell, 2022; Rupert & Dorociak, 2019). In addition, engaging in self-care has been shown to foster personal flourishing and promote good service delivery outcomes (Rupert & Dorociak, 2019; Zahniser et al., 2017). Whilst I always engaged in self-care activities such as exercise, until this project I never sought out professional help even though seeking personal therapy has been recommended for psychology professionals (Kumari, 2011; Quartiroli, Wagstaff, Zakrajsek, et al., 2022; Thériault et al., 2015). Although engaging in personal therapy is a requirement for many psychology qualifications offered by the BPS, it is currently not a requirement for trainee sport and exercise psychologists. Thus, professional bodies such as the BPS could consider the potential introduction of mandatory

personal therapy for trainees enrolled on Stage 2. Similarly, this could be done on other training routes such as BASES SEPAR. Indeed, recent meta-synthesis identified equal number of positives and negatives of such mandatory programmes (D. Murphy et al., 2018), nevertheless it should at least be encouraged by supervisors.

#### **4.4.2 Conclusion**

In summary, by sharing my own critical moments through creative non-fiction, I aimed to contribute to the growing literature using CAP within high-performance sport. Furthermore, I hope that my experiences as a researcher-practitioner implementing a season-long team resilience intervention within this context, along with the applied implications that emerged from it, will benefit other researcher-practitioners. It is important to note, that these are my personal experiences, which, while sharing commonalities with similar studies (Champ et al., 2020, 2021), have been interpreted through my own perceptions. Consequently, it is possible that another individual (e.g., a male or someone with greater experience in football) may have had a different experience when implementing the intervention. Therefore, more studies detailing researcher-practitioners' reflections in this context are necessary to determine whether my reflections are consistent with those of others in this field.

While this study presents my candid reflections on the nature of the professional women's football environment, it cannot be complete without emphasising the pressure and variety of stressors faced by coaches (Thelwell et al., 2008). Formal and informal one-on-one conversations with staff members revealed that each person contends with their own challenges, which may include loneliness, insomnia, anxiety, or a lack of time for loved ones. These views are analogous with Champ et al.'s (2021) commentary that individuals in sport organisations "might perform masculine behaviours to fit in, to survive, or hide their own anxieties and insecurities" (p.856). I believe the actions of the members of the staff at the

club were shaped by the culture they operated in. Therefore, I question why such behaviours are normalized and accepted simply because "this is football."

## **Chapter Five: General Discussion**

This chapter five begins with a summary of the key findings from the empirical studies presented in chapters two through to four of this thesis. This is followed by an evaluation of the overall contribution of this research programme to team resilience research and sport psychology applied practice. The final sections presented in this chapter include the strengths and limitations, future research directions, and practical implications of the overall thesis. The chapter ends with some concluding remarks, summarizing the key contributions of the thesis and reflecting on its broader significance.

### **5.1 Summary of Findings**

The primary aim of this research was to contribute to the advancement of team resilience research within the field of psychology, specifically in the context of high-performance women's sports. This was achieved by developing, implementing, and evaluating a multi-level, season-long intervention designed to enhance team resilience. To accomplish this overarching goal, the thesis addressed the following seven research objectives:

1. To identify the contextual stressors within high-performance women's football (Chapter two)
2. To explore effective team resilience strategies and perceived gaps for team resilience development within high-performance women's football (Chapter two)
3. To co-produce a context specific team resilience intervention with relevant stakeholders (Chapter three)
4. To implement a multi-level, season-long psychosocial intervention within professional women's football (Chapter three)



5. To evaluate the effectiveness of a multi-level, season-long psychosocial team resilience intervention within professional women's football (Chapter three)
6. To examine effective team level intervention design in high-performance sport (Chapter three and four)
7. To conduct an exploration of researcher reflections on the challenges encountered as a researcher-practitioner in professional women's football (Chapter four)

Chapter two described the first empirical study in this line of research. The aim of the study was to identify the stressors specific to the context, effective practices, and gaps in team resilience development within the context of high-performance women's football. Employing an intervention-mapping framework including an expert steering group, the findings revealed that high-performance women's football teams encounter various distinct organisational stressors and on-pitch stressors. More specifically, the findings showed that organisational stressors included challenges in adapting to a full-time professional environment, insufficient resources, and frequent changes to personnel. Furthermore, on-pitch stressors in this study encompassed sub-optimal collective problem-solving during pressurised situations, poor team-level management of collective emotions during setbacks, and significant losses. Moreover, the study identified several practices that teams currently employ to enhance their resilience, such as establishing a strong foundation for high quality relationships; unity in managing pressure; and learning from setbacks to inform future preparation for adversity. Additionally, the study identified significant gaps in current team resilience practices, such as limited effectiveness and inconsistent use of deliberate pressure training; inadequate psychosocial resources; and lack of effective proactive group level strategies during pressure. Team resilience researchers argued that identifying the contextual stressors is crucial in the development of team resilience (Chapman et al., 2020). Thus, this

study served as an important first step for the design and development of a team resilience intervention that is tailored to this specific context.

The aim of chapter three was to co-produce, implement, and evaluate a multi-level, season-long psychosocial team resilience intervention in professional women's football. The intervention was co-produced with a professional team and relevant stakeholders employing an action research design. The intervention was evaluated using both quantitative measures (CREST, BRS, team performance) and qualitative measures (process evaluation). At the individual level, the participants' resilience scores did not demonstrate a statistically significant change over the course of the season, suggesting sustained levels of individual resilience. At the team level, temporal changes were observed. The resilient characteristics subscale of the CREST initially displayed a positive trend at the beginning of the season but then demonstrated a statistically significant decline in the second half of the season. Following the analysis of the team vulnerabilities subscale of the CREST, a statistically significant increase was observed. While the team exhibited improved overall team performance by earning more league points (i.e., gained from the number of victories or draws from each match) and achieving a higher league ranking compared with the previous season. Furthermore, findings from the process evaluation indicated that team members reported numerous perceived positive outcomes from the season-long psychosocial team resilience intervention. These included observable team outcomes such as increased energy on pitch, performance, a more positive team environment, enhanced togetherness, and greater understanding of each other. The effectiveness of the researcher sport psychologist was also noted, including the offering of expert knowledge, confidential support, their presence and recognising a need for ongoing support to assist team members during pressurised situations or collective adversities. In addition, improvements in the team's resilience trajectory were discussed. Lastly, the study identified the participants' perspectives on intervention delivery

(perceived barriers to team resilience intervention delivery, enabling factors for team resilience intervention delivery, intervention content, and scheduling of the group sessions), and intervention improvements (intervention design, setup of one-to-one sessions, and synergy between sport psychologist and coaching staff).

In chapter four, the aim was to reflect on the experiences of delivering a season-long psychosocial team resilience intervention in professional women's football. This was accomplished using confessional tales presented as creative non-fiction vignettes, which allowed for an in-depth temporal exploration of personal reflections gained over the length of the season-long intervention. Specifically, I reflected on four critical moments that played a pivotal role in my journey with the intervention team. Although each critical moment addressed a distinct challenge and experience, they were nevertheless interconnected. These experiences included feeling out of place, navigating the maze, the confidentiality conundrum, and managing role overlaps. By sharing my own critical moments through creative non-fiction my intention was to contribute to the expanding literature on creative analytical practices (CAP) within high-performance sport. Furthermore, it is hoped that my experiences as a researcher-practitioner striving to embed a season-long team resilience intervention within this context, along with the applied implications that emerged from it, will serve to be beneficial to other researcher-practitioners.

In summary through a mixed-method approach this thesis asserts the following key points: (1) women's football teams encounter specific contextual challenges, and therefore identifying these contextual stressors is a crucial initial step in the development of resilience interventions (chapter two), (2) team resilience can be enhanced through a co-produced intervention, but its effectiveness will vary throughout the season depending on contextual factors (chapter three), (3) team resilience is a dynamic construct (chapter three), (4) to understand temporal changes in team resilience, it's essential to consider a range of

complementary measures, and (5) researcher-practitioners may encounter several distinct challenges while working in high-performance sports, in which the use of self-reflection may prove pivotal in managing them. Overall, the findings generated through this research programme make a significant contribution to the field of team resilience by demonstrating temporal insights, and have notable practical implications, which are discussed in the following sections.

## **5.2 Contribution to Research and Applied Practice**

### **5.2.1 The Development, Implementation, and Evaluation of a Longitudinal, Season-Long Team Resilience Intervention**

The most significant contribution of this thesis to the field of team resilience research in psychology is the development, implementation, and evaluation of a season-long psychosocial team resilience intervention. To date, there have been no other longitudinal intervention studies conducted with the aim of increasing team resilience in the context of high-performance sports that span across an entire season, despite growing calls from researchers for such research designs over the last few years (Chapman et al., 2021; Gucciardi et al., 2018; Kegelaers et al., 2021; Morgan et al., 2019). Several methods were employed to ensure that the season-long intervention aligns with prior recommendations from researchers in the area of team resilience. For example, a thorough needs assessment was carried out to identify contextual stressors as outlined by Chapman et al. (2020) to understand “resilience to what” (p.5). Secondly, a co-production approach was adopted to ensure contextual relevance, as advocated by Dubois et al. (2020). Thirdly, longitudinal assessments were conducted to evaluate the effectiveness of the intervention, as suggested by Gucciardi et al. (2018). These three suggestions from team resilience literature constituted the conceptual and methodological underpinning for development of the psychosocial team resilience

intervention in this thesis. Extending these factors further, each area is examined in the subsequent section.

While there are existing frameworks for developing individual level interventions within the field of sport psychology, such as the one proposed by Keegan (2016), there is lack of guidance on developing interventions at the team level. As a result, the needs assessment phase was guided by the principles of Intervention Mapping (IM, Bartholomew et al., 2016; Bartholomew et al., 1998) which is a framework for intervention development adapted from the healthcare setting. This innovative approach included conducting a literature review, organizing focus group discussions with the target population, and establishing a steering group to triangulate the findings. Triangulation in research refers to the practice of employing multiple approaches to investigate a particular question (Heale & Forbes, 2013). It is a valuable research method that utilises multiple datasets to provide a comprehensive understanding of a phenomenon. It not only allows for the exploration of various aspects of interest, but also serves as a means to discredit an assumption if one dataset contradicts another. Moreover, it can support the validation of a hypothesis by corroborating findings across different sets of data. Ultimately, triangulation aids in the interpretation and explanation of study results (Noble & Heale, 2019). Adopting this approach resulted in the identification of contextual stressors, effective team resilience practices, and areas requiring further development in team resilience – a crucial step in the creation of a team resilience intervention (Chapman et al., 2020). Although the use of IM proved advantageous during the needs assessment phase, subsequent stages had to be adapted to suit the chosen action research design which aimed for continuous co-production and implementation of the intervention.

A collaborative approach to the development of team resilience interventions has been proposed and utilised by several resilience researchers (Bennett et al., 2010; Dubois et al.,

2020; Kegelaers, Wylleman, et al., 2021). However, surprisingly no studies employed action research, despite its numerous benefits for group level settings given the collective interactions during adverse situations. Action research focuses on improving lives through knowledge and action, involving strategic action and critical reflection. It provides participants with the means to produce solutions to practical problems or improvements in practice based on individual and organisational needs (Berg, 2004; Wagstaff et al., 2013). Therefore, adopting an action research approach was deemed suitable for the development and implementation of a season-long team resilience intervention within professional football, given the constantly changing stressors and the need to continually reassess and reflect upon the team's needs. In a context where a sport psychologist has not previously been involved, continuous evaluation of the programme was also necessary to ensure its fit within the environment and its effectiveness. Additionally, using this approach enhanced the ecological validity of the intervention by mirroring real-world conditions (Ivankova & Wingo, 2018). The perceived usefulness of the intervention's collaborative approach was evidenced and portrayed through the findings in chapter three. Consequently, researchers and sport psychology practitioners are advised to consider adopting an action research design to team resilience intervention development.

This thesis also addressed team resilience researchers' call for the use of longitudinal assessments (Gucciardi et al., 2018; Morgan et al., 2019) to capture team functioning before, during and after experiencing adversity. To achieve this, quantitative, and qualitative measures were employed, combined with a continuous assessment of the team's performance. Regarding the multi-level quantitative assessment of the intervention (individual, team), the findings of this research demonstrated no statistically significant changes in measures of individual resilience over time which was measured by the BRS (Smith et al., 2008). Previous intervention studies using the BRS within the context of team

sports (baseball and ice-hockey) found significant increases in resilience scores following psychological skills training interventions (Vidic, 2021; Vidic & Cherup, 2022). However, a lack of fluctuation in individual resilience may indicate sustained levels of team resilience or robust resilience (Fletcher & Sarkar, 2016) where individuals are able to maintain performance and well-being despite experiencing challenges.

In this research, the team's resilience was measured using the only existing sport specific measure, the CREST (Decroos et al., 2017), which has also been suggested for use in longitudinal measurements of team resilience (Decroos et al., 2017; Kegelaers, Wylleman, et al., 2021). The resilient characteristics subscale of the CREST initially displayed a positive trend at the beginning of the season but then demonstrated a statistically significant decline in the second half of the season. Since this was the first longitudinal study spanning an entire season, it is unknown whether the decrease would have been even more significant without an intervention in place. The process evaluation with team participants supported this notion as they noted that in comparison to the previous season, there were fewer perceived fluctuations in the respective facilitative team dynamics that helped the group to withstand pressure. Following the analysis of the team vulnerabilities subscale of the CREST, a statistically significant increase was observed. Also using the CREST to evaluate their team resilience intervention, Kegelaers et al. (2021) found that while team vulnerabilities decreased, there were no changes in the characteristics of team resilience subscale. The questionnaire developers suggested that reducing team vulnerabilities might be the first step in enhancing team resilience (Decroos et al., 2017). Interestingly, other researchers also used the CREST to evaluate a team resilience intervention. Tassi et al. (2023) did not find any changes of team resilience scores in the experimental group, but they did find that the control group showed decreased scores in their team resilience characteristics and also increased in

the measures of vulnerability scores shown under pressure. However, neither of these studies provide a longitudinal season long view into a team's resilience trajectory.

Overall, the findings from utilising quantitative assessments of team resilience in a longitudinal intervention study suggested that researchers should take various factors into consideration when quantitatively assessing team resilience in high-performance sports. For example, the timing of exactly when participants completed the CREST questionnaire may have contributed to the significant decrease in team resilience characteristics. To explain this, during the process evaluation, participants discussed that completing the questionnaires often occurred directly after a heavy or significant defeat. Consequently, team members responded unfavourably to the questions, resulting in a lower overall team resilience score. These findings raise important considerations regarding the quantitative measurement of team resilience. Since team resilience is understood as a dynamic construct that changes depending on the context and various factors (Hartwig et al., 2020; Morgan et al., 2013), the suggestions for its longitudinal assessment have not adequately taken this into account. Unfortunately, researchers are often limited by participants completing quantitative measures under time constraints of the environment, which may not be the most suitable time for the research project itself. Furthermore, it remains unclear when the most appropriate time would be to measure team resilience using quantitative scales when studying a team throughout an entire season, given the relatively constant exposure to individual and team level stressors. Moreover, the findings from the process evaluation suggested that team members still perceived their team as resilient even during the period when quantitative data indicated a decline in team resilience characteristics measured by the CREST. This finding was further supported by the participants' perceived increases in several characteristics of team resilience, such as social capital and group structure (Morgan et al., 2013). Indeed, the consultants in R. S. Vealey et al.'s (2019) study recommended conducting validation studies



for the use of instruments in interventions, emphasising the importance of focusing on applied assessment rather than research assessment, and advocated for the design of measures that can be used repeatedly over time to indicate change. Therefore, to comprehensively capture the temporal dynamics of team resilience it is vital to consider how multiple, complementary measures might be utilised.

In summary, the first longitudinal team resilience intervention conducted in the context of high-performance sports yielded a number of important findings. For instance, the assessment of context-specific stressors and needs emerged as a crucial factor in intervention development, while adopting a collaborative approach to intervention design and implementation proved to be appropriate and advantageous. Furthermore, the findings highlighted the importance of acknowledging that various challenges exist regarding the quantitative measurement of resilience in high-performance sports and that multiple, complementary measures are needed to accurately assess team resilience in this context.

### **5.2.2 Advancing Team Resilience Research in the High-Performance Women's Football Performance Context**

The present thesis provides a noteworthy contribution to the field of high-performance sport by researching the context of women's football. This contribution holds significance for two key reasons. Firstly, previous research highlighted a gender disparity in intervention studies within the realm of sports. Specifically, there has been a greater focus on developing and testing interventions for male athletes, while female athletes received less attention (D. J. Brown & Fletcher, 2017). Unfortunately, many professions within women's football still base their understandings from research conducted on men, which has raised several concerns for the players health and well-being (FIFPro, 2022) and as identified by the needs assessment in chapter two. Secondly, the popularity of high-performance women's football is rapidly increasing in the UK and worldwide indicating a "new age" (Petty & Pope,

2019, p. 487), evidenced by elevated media attention (Petty & Pope, 2019; Pope et al., 2023), viewership and match attendance (FIFA, 2020). For instance, from the 2021/22 season to the first half of the 2023/24 season, there has been a 40% increase in the Barclays Women's Super League attendance (Baer, 2024). In addition, there has been a 24% increase worldwide in women and girls playing organised football since 2019 (FIFA, 2023). Moreover, according to The FA (2022), since October 2021, female affiliated players across all levels of the game have seen a 17% increase, while the number of registered female football teams has grown by 30%. Additionally, there has been a 15% rise in female youth teams. The growth in female involvement is not limited to playing alone, but also extends to refereeing and coaching. The number of registered female referees has increased by 21% across all levels since October 2021. Furthermore, the number of female coaches working with affiliated teams has risen by 75% compared to the same period last year (The FA, 2022). Consequently, it is crucial that research and evidence-based knowledge are readily available to support individuals involved in the sport to mirror its fast progression.

In this line of research, various nuances were observed that appeared to be specific to the context and sample under consideration. In particular, chapter two examined the contextual stressors encountered by women in high-performance football. The study revealed that women face organisational stressors stemming from the newly professionalised environment, as well as on-pitch stressors due to limited social resources. Examples of these organisational stressors included adapting to a full-time professional environment, insufficient resources, and frequent changes to personnel, all of which are characteristic of this particular context. Whereas on-pitch stressors included sub-optimal collective problem-solving during pressurised situations, poor team-level management of collective emotions during setbacks, and significant losses. The 2017 FIFPro report noted that only 53% of women had a written contract with their club, while this rate was much higher among men,

with 92% of them indicating a written contract (FIFPro, 2017). Despite the professionalisation, women still tend to have shorter and less lucrative contracts than men (FIFPro, 2022), leading to many of the experienced stressors reported in the present thesis, such as frequent changes to personnel. Although this line of research did not aim to compare male and female samples, it does offer valuable insights into the stressors experienced by players in women's football. As a result, it provides stakeholders and practitioners with a greater understanding and serves as a foundation for providing support, eliminating the need to rely on a sample that includes only men, making it more applicable.

In addition to identifying specific contextual stressors faced by women in high-performance football, this study identified several distinctive team resilience practices in this context that have not been recognised or examined to the same extent before. For example, participants noted the vital role of emotional contagion in managing stressors, the importance of continuous preparation for challenges, the significance of individual level support, and the appropriate formation of leadership groups within their respective teams. It is interesting to note that in previous research, emotional contagion, in relation to team resilience, has not been found to exert the same amount of influence in high-performance sport as evidenced in this thesis. Indeed, research suggests that women may be more susceptible to emotional contagion than men (Rochat, 2023). Thus, it is possible that the limited number of existing studies on team resilience in high-performance sports, which include a sample of women, has contributed to this phenomenon remaining unrecognised in previous research. These findings further highlight the significance of conducting context specific evaluations as part of intervention development.

In addition to the significance of a comprehensive needs assessment within high-performance women's football, chapter three advances literature by implementing an extensive team resilience intervention in this context with numerous applied insights. The

specific team resilience strategies that were identified as being effective within women's football will be explored in section 5.2.5 of this thesis. The findings from the intervention offer preliminary evidence suggesting a multifaceted relationship between resilience and performance in women's football. Within this outcome-driven environment (Cruickshank & Collins, 2012), the participating team demonstrated an improvement in overall performance across the season relative to the previous year. Moreover, process evaluation data revealed that both players and staff perceived enhancements in individual and collective performance, which they attributed, at least in part, to the season-long psychosocial team resilience intervention. While causality cannot be inferred, this aligns with previous research indicating that resilience may act as a buffer against performance disruption (Fletcher & Sarkar, 2012). Furthermore, the findings suggest that within women's football team resilience operated not only at the individual and team level, but also interacted with factors at the organisational level. Importantly, the effectiveness of resilience-building efforts appeared to hinge on the degree of shared commitment and buy-in across all three levels (Sarkar & Page, 2022). This underscores the need for a system-wide approach when embedding resilience within high-performance women's football.

To extend the contribution to the literature in women's football, chapter four provided valuable reflections on the experiences of conducting this intervention within this specific context. This reflection identified several challenges that individuals wishing to implement a psychosocial intervention may face in this environment. For example, sport psychology practitioners entering this context should be aware that professional football environments often exhibit scepticism towards individuals with a university background (Cushion, 2001; Kelly & Waddington, 2006; Pain & Harwood, 2004)ton, 2006; Pain & Harwood, 2004). The findings in chapter four illustrate that this could have negative consequences for the practitioner such as feelings of isolation and a persistent fear for the effectiveness of the

intervention. Furthermore, as R. King (2023) noted, high-performance sport organisations were found to be less likely to deviate from their established routines, processes, and approaches. Such perceptions presented a significant challenge for intervention implementation within this thesis, where new ideas were being introduced, but their uptake was often limited. To overcome these challenges, this research identified that a consistent emphasis must be placed on building rapport and effective working relationships with key stakeholders within the organisation. This may be achieved by focusing on the essential characteristics of sport psychology practitioners, such as strong interpersonal skills including empathy and approachability (Campbell, 2009; Lubker et al., 2008; Wolloway & Harwood, 2020). Additionally, finding and identifying allies (e.g., physiotherapist, team captain, assistant manager) appeared to be pivotal in initiating the process of ‘buy-in’ thereby enhancing the effectiveness of the intervention in this thesis. By developing relationships within high-performance settings, practitioners can demonstrate their value and provide evidence of their worth to the organisation (McDougall et al., 2015). Consequently, this ensures the successful implementation and continuity of the intervention within the setting as well as the sustainability of the sport psychology programme.

Moreover, while there has been a notable increase in the number of published studies in the field of sport psychology conducted within the context of women’s football from 2020 (n=26) to 2022 (n=43) (Gredin et al., 2023), further research is required to address various questions posed by Nassis et al. (2022). It is hoped that the findings of this thesis made a significant contribution by addressing one of the challenges raised by Nassis et al. (2022), which pertains to understanding how female footballers respond to pressure. In fact, it is anticipated that the present thesis has gone beyond mere identification of response patterns to pressure by identifying specific stressors and effective strategies for managing adversities. Nonetheless, further research is needed to address significant queries in advancing the

knowledge base surrounding the context of women's football. It is also advisable to adopt a collaborative approach in identifying research questions requiring answers based on players' and coaches' needs (Nassis et al., 2022).

In summary, this thesis has made a valuable contribution to the understanding of individuals in women's football, illuminating unique stressors and team resilience practices. By emphasising the specific challenges faced by participants in this context, such as organisational stressors and limited psychosocial resources, it highlights the necessity for tailored interventions that take into account the distinct characteristics of women's football. Furthermore, the study's exploration of effective team resilience strategies and the challenges encountered in implementing psychosocial interventions provides crucial insights for practitioners and stakeholders operating in the field. Overall, this research underscores the importance of context-specific explorations and advocates for continued investigation into the evolving dynamics of women's football to support its rapid growth and professionalisation.

### **5.2.3 Adopting a Creative Writing Style to Present Confessional Tales from Delivering a Season-long Psychosocial Team Resilience Intervention**

The findings of chapter four make a significant contribution to the field of research in high-performance sports by presenting confessional tales from delivering a season-long intervention in a context that has been described as volatile (Eubank et al., 2014; Larsen, 2017). This is important as researchers have been criticised for only presenting tidy reports that highlight successes while keeping the messy realities private (Boman & Jevne, 2000; Sparkes, 2002). By sharing these reflections, individuals can gain a deeper understanding of the complexities that high-performance environments present for both for researchers and practitioners. This is important for several reasons: a) trainee sport and exercise psychologists often lack awareness and preparation for the realities of high-performance environments, despite their extensive theoretical knowledge (Eubank et al., 2014); b) in order to remain

effective, sport psychologists must continuously learn from real-life environments (Keegan, 2016); and c) the act of reflection can enhance practitioners' self-awareness (Knowles et al., 2014) and contribute to the development of their professional identity (McEwan et al., 2019). Therefore, it is not only crucial for sport psychology practitioners to reflect on their own experiences but also to communicate these reflections to wider audiences so that other individuals can learn from them.

In addition to providing a valuable resource for researchers and practitioners in preparing them for the high-performance environments, these reflections may contribute to the development of guidelines, educational pathways, and training routes. For example, based on the findings presented in chapter four, current sport psychology training pathways such as BPS Stage 2 or BASES SEPAR, should consider making participation in psychological therapy compulsory for trainee sport and exercise psychologists. This recommendation is supported by its individual benefits and the endorsement of researchers (Kumari, 2011; Quartiroli, Wagstaff, Zakrajsek, et al., 2022; Thériault et al., 2015). Furthermore, professional bodies offering sport psychology training pathways, such as BPS and BASES, could consider shadowing of experienced sport psychologists as part of the training, organising workshops and detailed courses that address the specific challenges faced in high-performance environments, as well as providing additional resources for trainees and supervisors. Lastly, the reflections presented in chapter four aim to reach a broader audience of individuals working in sports with the goal of generating interest in modifying some of the detrimental practices also identified by other researchers (Champ et al., 2020, 2021; Feddersen et al., 2023; Mellalieu, 2017). For example, individuals being treated as an outsider (F. L. Gardner, 2001), experiencing role conflict and role ambiguity, facing requests to share confidential information (Champ et al., 2020; Feddersen et al., 2023), encountering ignorance and scepticism towards the research project (Champ et al., 2020), and experiencing the use of

power and intimidation towards sports practitioners (Champ et al., 2021). To foster change within these environments, adopting a systematic approach to culture transformation is recommended, instead of accepting the status quo with the notion that ‘this is football’.

One way of reaching a wider audience is through the utilisation of creative non-fiction, which is a type of creative analytical practice (CAP, L. Richardson, 2000). Middleton et al. (2024) suggests that the next wave of research may be more collaborative, with researchers partnering with their intended audiences—such as athletes, coaches, and parents—right from the start of their projects and throughout the decision-making, development, and dissemination of CAPs. Despite receiving criticism over the years (Smith et al., 2015), such as its lack of grounding in scientific rigour (Sparkes, 2002), the use of creative non-fiction in the field of sports has seen a notable increase, with more studies being published (Champ et al., 2021; Clarkson et al., 2019; Lewis et al., 2020; McLoughlin et al., 2023; O’Malley et al., 2018). More specifically, from 2014 to 2023, there was a significant increase in the use of CAPs, with 23 out of the 43 articles included in Middleton et al.’s (2024) review published in the past five years (2019–2023). Consequently, the reflections presented in chapter four were composed using creative non-fiction. The purpose of employing creative non-fiction vignettes was to establish an emotional, behavioural, and embodied connection with the reader, fostering empathetic understanding (Champ et al., 2021). Moreover, by using creative non-fiction, it was hoped that the chapter would appeal to individuals outside of academia. This is important if researchers in the field of sport wish for their studies to be read and applied by coaches, managers, and practitioners. Therefore, it is anticipated that the vignettes and accompanying reflections will serve as valuable resource for various sport practitioners and researchers working in applied settings. In addition, it is hoped that the findings of this chapter would encourage researchers to 1) engage in self-reflection and make their findings accessible to the public (Anderson et al., 2004), and 2)



employ innovative methods for representing their data in order to reach a broader range of audiences.

In summary, by providing reflections on the experience of implementing a season-long intervention in professional women's football, it is hoped that readers gain a greater comprehension of conducting applied work in this context, and specifically during pressurised situations. In addition, it is believed that increased communication among practitioners about their experiences may contribute to meaningful systematic changes in these high-performance environments. Moreover, considering that sport practitioners typically operate within a multi-disciplinary team, it is crucial for each member to fulfil their role and effectively collaborate with team members to support the players. Therefore, detrimental practices have no place in these environments if optimal well-being and success for all individuals involved are to be achieved.

#### **5.2.4 Effective Intervention Design in Sport Psychology and Application to Team Resilience**

While existing bodies of research mainly focused on testing interventions in controlled environments, there is a dearth of studies exploring the specific processes of implementing sport psychology interventions and the underlying reasons for their effectiveness (Tod et al., 2019). Indeed, meta-analyses, such as the one conducted by Brown and Fletcher (2017), only include studies that utilised a randomized, controlled, experimental design to ensure high internal validity. However, these studies may not accurately represent the dynamics of high-performance sport environments and may not provide sufficient information for applied practitioners hoping to implement the interventions (Ely et al., 2021). As a result, researchers and practitioners may be left uncertain about the finer details that make interventions effective. This lack of clarity may be attributed to the constraints imposed by page limitations in peer reviewed journals (Spellman, 2015), which prevent researchers

from including all the necessary details of their interventions consequently limiting the real-world applicability of these interventions (Ely et al., 2021). The findings of the present thesis contribute significantly to both resilience research and applied professional practice by conducting a process evaluation that assessed participants' perspectives on the implementation of a season long psychosocial team resilience intervention. Therefore, the research goes beyond simply reporting the results of the intervention itself by exploring specific details around effective intervention implementation, making it more applicable to applied contexts.

Firstly, although applied sport psychology practitioners working in high-performance team settings often reflect on the need to be comfortable with doing sport psychology in informal settings, such as in elevators, on side-lines, on airplanes, and even in hotel restaurants when traveling with a team (F. L. Gardner, 2001; Moore, 2003), the participants in the present study expressed a preference for a more traditional or conventional approach to participating in sport psychology sessions. They indicated that these sessions could take place in a separate confidential space or online on their days off from training and match-days. This preference may be influenced, at least in part, by the stigma that still surrounds sport psychology (Dean et al., 2022; Feddersen et al., 2023; Tod et al., 2019), especially in demanding high-performance environments which are unforgiving, where expectations are extremely high, performance is closely monitored a daily basis, and the consequences of poor performance may include reduced playing time or even job loss (F. L. Gardner, 2001). Furthermore, participants in this thesis suggested that a comfortable setting, such as their home would make it easier to 'open up' during online sport psychology sessions and would indicate a clear separation from their business environment where training takes place. Moreover, participants emphasised the importance of having a scheduling system in place to book one-to-one sessions. While this may already be common practice for sport

psychologists working in private settings, this study identified a direct need for such a system to be implemented in a professional team environment.

Secondly, the participants in chapter three discussed the skills of the sport psychology practitioner that they perceived were effective. This included the ability to offer confidential support, possessing expert knowledge, and being present around the team. These findings are consistent with previous research in the field. For instance, Tod et al. (2017) suggested that effective practitioners can be characterised by their ability to *be*, *know*, and *do*. They can *do* sport psychology and support their clients, *know* sport psychological theories, and *be*, i.e., possessing personal qualities such as empathy, unconditional positive regard, and congruence (Nesti, 2004). In addition, other researchers discussed the importance and surrounding challenges regarding confidentiality within high-performance sport settings (Eubank et al., 2014; Feddersen et al., 2023; Moore, 2003; Sharp & Hodge, 2011, 2014). The findings from this thesis contribute to the existing literature by emphasizing the specific perceived effectiveness of simply being around the team. In the context of this thesis, this was particularly impactful during difficult situations and pressurised moments that team members encountered, such as a sudden injury to a key player during a home match or when experiencing ongoing conflict among team members. Although some researchers discussed features of spending time on the sidelines or around the team so that coaches and players can approach them (Rowley et al., 2020), or to build relationships (McDougall et al., 2015), the participants highlighted the importance of small chats, conversations, and checking in. Consequently, sport psychologists should continue to be fully embedded into the team's environment but should also consider offering support outside of training and match days. This would enhance psychosocial support necessary for bolstering individual and team resilience (Sarkar & Page, 2022) as well as individual and collective level resources that team members can draw on during pressure (Morgan et al., 2013).

Thirdly, a prominent finding that emerged from the study was the scheduling of the team resilience group sessions. These sessions were conducted indoors on a weekly or biweekly basis, with each session lasting approximately 30 minutes. This scheduling was designed to accommodate the team's busy schedule and ensure that the sessions seamlessly fit in. While some participants expressed a desire for more time dedicated to the psychological aspect of the sport, the majority indicated these team resilience group sessions lasting around 30 minutes were most suitable in this fast-paced environment. It is worth noting that while some teams now employ full-time sport and exercise psychologists worldwide, many practitioners still work on a part-time or consultancy basis (Lafferty et al., 2022; J. Martin, 2020). Therefore, this finding holds particular relevance for individuals that have limited time with the team (Pain & Harwood, 2004) or those working with coaches who are unwilling to allocate more time for sport psychology (S. Gilmore et al., 2018). Although the findings in chapter two and Dean et al. (2022) emphasised the importance of having classroom-based sport psychology sessions, Dean et al. (2022) also noted that sport psychology can be integrated into on-pitch training sessions (e.g., pressure training) and incorporated into daily discussions to overcome the time constraints. Consequently, shorter (30 minutes long) group sport psychology sessions are not only preferred by the participants but were also perceived as effective in bolstering a number of team resilience characteristics. In addition, these classroom-based sessions can be further enriched by integrating them into on pitch training sessions as suggested in chapter two and by Dean et al. (2022).

Lastly, team members in chapter three reflected on the advantages of dividing into smaller groups within the team resilience group sessions. This enhanced the players' ability to establish meaningful connections with their teammates and engage in more in-depth conversations. The effectiveness of small group discussions has been noted in the field of education. Studies demonstrated that such discussions can increase participation, promote

equal involvement among students from diverse ethnic background (Pollock et al., 2011), encourage more interactive communication, and reduce the influence of dominant individuals (Fay et al., 2000). Thus, sport psychology practitioners working in team settings should capitalize on the potential of small group discussions during group sport psychology workshops. Such small group discussions may aid the perception of psychological safety within the team whereby individual may feel safe for interpersonal risk-taking, such as asking for help, admitting one's errors, or seeking feedback from others (Edmondson, 1999). In turn a psychologically safe environment may lead to improved team resilience (Fransen, McEwan, et al., 2020).

It is anticipated that these findings, which are further elaborated upon in chapters two and three, will provide researchers and sport psychologists with valuable information to apply within their respective contexts. It is expected that these findings can be readily implemented, enhancing the efficacy of team level work and interventions in high-performance sport settings. In addition, while the focus of the thesis has been on team-level intervention, it is likely that many of these findings transfer to the world of individual high-performance sports, such as utilizing a scheduling system, the importance of being around and checking in, and the effectiveness of brief sport psychology workshops.

### **5.2.5 Effective Team Resilience Practices in High-Performance Women's Football**

The thesis makes a substantial contribution to the field of applied sport psychology by offering effective practices for enhancing team resilience in high-performance women's football. Chapter two provided reflections on the participants' experiences with strategies that they perceived to be effective in enhancing team resilience in their respective teams. Additionally, chapter three presented the actual implementation and effectiveness of a team resilience intervention conducted throughout an entire season. For example, while the literature on team resilience research extensively covers the benefits of shared leadership and

the utilization of leadership groups (Chapman et al., 2021; Gomes et al., 2022; Kegelaers et al., 2020; Morgan et al., 2013; Van Der Kleij et al., 2011), chapter two revealed that within this particular context, these approaches did not prove to be practically applicable. Moreover, the findings in chapter three revealed that although participants recognised the potential benefits of leadership groups, there was a lack of interest from stakeholders in implementing them. Therefore, it is crucial for researchers and sport psychology practitioners to identify the strategies that effectively enhance team resilience in their respective contexts.

One of the most frequently mentioned effective strategies for enhancing team resilience with the participating team in the intervention study detailed in chapter three was the resilience wall. As detailed in chapter three, each team member selected a photograph from the season that best represented their resilience moment. These photos included significant team performances, memorable goals scored, and individual standout moments such, as returning from an injury. In this thesis, this activity was conducted in the latter stages of the season, when the team was facing difficulties. Nonetheless, the timing of this activity was deemed pivotal, as participants acknowledged its exceptional value amidst challenging circumstances. The importance of this strategy lay in its ability to influence collective efficacy (Bowers et al., 2017; Hartwig et al., 2020; Morgan et al., 2013; Sharma & Sharma, 2016; Vera et al., 2017) and social identity (Hartwig et al., 2020; Morgan et al., 2017; Morgan et al., 2015; Sarkar & Page, 2022), concepts that have been well researched to facilitate team resilience. As a result, researchers and sport psychology practitioners are encouraged to involve players in the selection of their resilience moments and to prominently display them in a visible area around the training ground. This in turn may influence their collective efficacy, strengthen their social identity, consequently resulting in perceived enhanced team resilience.

The significance of group structures (Decroos et al., 2017; Hartwig et al., 2020; Morgan et al., 2013; Sharma & Sharma, 2016) and the establishment of group norms and values (Chapman et al., 2021; Fasey et al., 2021; Gucciardi et al., 2018; Sharma & Sharma, 2016) are widely documented in academic literature to enhance a team's resilience. They play a pivotal role by providing guidance to team members on how they should think, act, and feel in various situations, especially when faced with adversity, thereby shaping their collective response (Gucciardi et al., 2018). Hence, these aspects were given significant attention from the outset of the psychosocial team resilience intervention. For example, the players agreed upon their vision, created a vision board, and had everyone sign it. Subsequently, they identified and agreed upon their non-negotiables by having each player submit their top three priorities, which were then compiled by the team captain and vice-captain to determine the three most commonly chosen responses. Team resilience group sessions then focused on these three non-negotiables and the behaviours required to embody them. While research suggests that it is important for the entire organisation to be aligned (Fasey et al., 2021), the players in this context preferred to keep their non-negotiables private among themselves. Consequently, sport psychology practitioners are advised to collaborate with relevant team leaders (Gucciardi et al., 2018) to establish the team's norms and values in order to increase team resilience. The establishment of group norms not only strengthens group structure, but also cultivates a distinct team identity further increasing the likelihood of enhancing team resilience. In this particular context, these norms and values were referred to as non-negotiables, emphasizing the importance of using the participants' own language to ensure effectiveness.

Given the importance of social capital (Morgan et al., 2013; Sharma & Sharma, 2016) and the development of caring, supportive high-quality relationships for enhancing a team's resilience (Carmeli et al., 2013; Fasey et al., 2021; Gonzalez, Detling, et al., 2016; Hartmann

et al., 2021; Hartwig et al., 2020; E. King et al., 2023; Stephens et al., 2013; Vera et al., 2017), team building resilience activities were implemented throughout the season to strengthen social connections. These activities included for example dividing into smaller groups and constructing the tallest spaghetti tower or participating in a quiz about the team. The needs assessment (chapter two) revealed that due to the frequent turnover of personnel, these activities should be carried out continuously throughout the season. One participant in the intervention study (chapter three), who joined midway through the season highlighted the significance of the spaghetti tower activity upon joining the team, as it helped her engage with others and establish connections more easily. High-quality relationships hold significant importance for a number of reasons. Firstly, teams that possess strong social bonds tend to be better emotionally equipped to handle adversity (Meneghel et al., 2016). Secondly, high-quality relationships may facilitate supportive behaviour and cooperation in the face of difficulties (Hartwig et al., 2020). Finally, such relationships contribute to the development of effective coping mechanisms to deal with external negative events (Vera et al., 2017). Within the multi-level, season-long psychosocial team resilience intervention, detailed in chapter three, the benefits of these activities extended to on-pitch performance through the enhancement of communication channels and the fostering of stronger social bonds. Therefore, sport psychology practitioners are encouraged to incorporate team building resilience activities into their programmes throughout the season to enhance team resilience. These activities were found to be most effective when they were not centred around specific football related tasks, but rather when the focus was on building interpersonal connections.

In summary, there are numerous approaches available to enhance team resilience within high-performance sports. An expanding body of evidence exists regarding factors that display positive associations with team resilience (Kegelaers et al., 2021; López-Gajardo et al., 2023; López-Gajardo, García-Calvo, González-Ponce, Cantú-Berrueto, et al., 2022;



López-Gajardo, González-Ponce, et al., 2022; Morgan et al., 2013, 2015, 2019; Tassi et al., 2023) that coaches, sport practitioners and sport psychologists can draw upon. Nevertheless, it is crucial to acknowledge that various strategies will yield different outcomes depending on the context that they are implemented in. Furthermore, the importance placed on the factors that facilitate team resilience may vary across different contexts. Therefore, it is imperative to collaborate with key stakeholders to develop effective strategies tailored to their specific contexts in order to ensure the intervention's effectiveness.

### **5.3 Strengths and Limitations**

The findings of this thesis advanced team resilience research and practice in several ways. Firstly, a notable strength of this line of research is the adoption of IM principles (Bartholomew et al., 2016; Bartholomew et al., 1998) to the initial stages of intervention development. More specifically, conducting a literature review, a contextual needs assessment and engaging with an expert steering group provided novel insights into the sports performance context in women's sport. This ensured that co-production, which has been widely recommended by researchers as the most effective method for developing team resilience interventions (Bennett et al., 2010; Dubois et al., 2020; Kegelaers, Wylleman, et al., 2021), is present from the initial stages. Within the needs assessment and pre-intervention phase, detailed in chapter two, another strength was identifying a target population's contextual stressors and their direct needs for team resilience development. In chapter three, the co-production approach was coupled with an action research structure to design a team resilience intervention that is specific to the context. Therefore, adopting such an approach allowed for the inclusion of participants' input and enhanced the perceived effectiveness of the intervention. By employing an action research approach, it was possible to continuously refine the intervention through reflection and provide practical solutions and knowledge to address specific problems that the team faced, considering their unique needs at the time

(Berg, 2004; Tinning, 1992). For example, although there are various team resilience strategies that researchers and practitioners can incorporate, action research demonstrated that individuals could identify what would work best for the team's development at a given time. In this study, the creation of a 'resilience wall' to enhance collective efficacy and strengthen social identity (Morgan et al., 2019; Sarkar & Page, 2022) was implemented only in the final months of the season. The participants reflected that this timing was most suitable for the following reasons: 1) it took place when boosting collective efficacy was most needed, 2) it allowed for a meaningful reflection on the season's accomplishments, and 3) it aligned with the team's training programme and scheduling. Therefore, researchers and practitioners are encouraged to adopt similar approaches if they wish to develop context specific interventions in high-performance sports.

Secondly, the thesis makes an important scholarly contribution by conducting and evaluating a team resilience intervention that spanned an entire season. This study fills a significant gap in the existing body of research on team resilience, as there has been a dearth of longitudinal interventions in this field. More specifically, in the context of sport, only two relatively short team resilience interventions have been published (Kegelaers, Wylleman, et al., 2021; Tassi et al., 2023). The longitudinal intervention presented in this thesis emphasises that team resilience may be developed during the course of a season, drawing upon the characteristics of a resilient team (Morgan et al., 2013), and proposed strategies (Morgan et al., 2019). However, future researchers should take into account several considerations regarding the quantitative measurement of team resilience over an extended period of time. This was the first longitudinal study to assess team resilience using the CREST scale (Decroos et al., 2017), and although there are certain limitations regarding its use, these limitations would not have been identified without a season long intervention in an ecologically setting.

Lastly, a notable strength of the thesis is its utilization of appropriate approaches to evaluate and reflect on the implementation of the team resilience intervention. The process evaluation encompassed samples of both players and staff members, thus providing a more comprehensive understanding of the delivery, effectiveness, and areas for improvement of the intervention. Process evaluations are particularly advantageous in high-performance sports, where control groups are often unavailable, intervention activities may not be entirely under the researcher's control, participant groups may be small, and contexts may fluctuate (Randall et al., 2019). In addition to the process evaluation, chapter four offers a detailed reflection from the practitioner's perspective. Consequently, from the process evaluation it was identified that participants particularly appreciated the inclusion of a variety of team resilience activities and the absence of a pre-scripted approach. In chapter four, I delved into my personal reflection on the co-production process, highlighting successful collaborations with the team captain, as well as inevitable challenges encountered with the manager. Another example involves players and staff members observing a lack of synergy between the sport psychologist and the rest of the coaching staff. In chapter four, I then reflected and explored my perspectives on these difficulties. Thus, the process evaluation and practitioner's reflections complement each other in the evaluation of an intervention within the context of high-performance sports. In addition, it is hoped that researchers and practitioners can take valuable lessons from these through evaluations and reflections.

Despite the strengths mentioned above and novel findings presented in this thesis, the research is not without its limitations. Firstly, the needs assessment, which is described in detail in chapter two, only involved a one-off focus group with sample teams of players. Therefore, the needs assessment did not allow for a longitudinal understanding of the teams' resilience needs across an entire season. While such longitudinal exploration did not take place in the early stages in this thesis, the narrative inquiry conducted by Morgan et al.

(2013), provided some insights into certain stages of team resilience development that the intervention development phase could draw on. As such, there is an early team resilience phase where transformational leadership and the development of a distinct social identity took centre stage, a middle team resilience stage, where shared team leadership and team learning from setbacks were vital as the team experiences significant setbacks, in the later team phase, positive emotions, salient social identity processes and shared leadership all played a vital role. Another study by Morgan et al. (2019), which followed a team throughout an entire season, offers further insights into the factors that enable and the strategies that facilitate team resilience development. Therefore, a longitudinal approach to needs assessment could have illuminated additional team resilience needs important for the development of a season-long team resilience intervention.

Secondly, chapters three and four shed light on the challenges encountered in obtaining initial buy-in for the intervention and in the organisation's readiness to embed the season-long psychosocial team resilience intervention. As a result, the uptake of certain key intervention components was lower than planned, thereby potentially impacting the effectiveness of the intervention. For example, while tactical briefings and debriefings with the coaching staff are essential for developing team resilience, chapter two revealed that the players expressed a specific need for separate meetings facilitated by a sport psychologist or other 'external' support roles, where they could specifically discuss setbacks. Team members felt that this would provide a 'safe space' for sharing emotions, thereby increasing psychological safety and ultimately positively influencing team resilience (Fransen, McEwan, et al., 2020). Additionally, Hartmann et al. (2021) suggested that the experience of adversity magnifies feelings of vulnerability in individuals and triggers their need for support. Therefore, a purely cognitive focus on the tactical aspects of debriefings may not address the needs of team members. However, in practice, these meetings were not feasible due to the

slight reluctance and often time constraints that existed from key stakeholders in the intervention. According to Nytrø et al. (2000), the effectiveness of an intervention depends on individuals: a) recognising that they have difficulties that require attention; b) believing that the intervention will effectively address these difficulties; and c) being motivated to actively participate in and support the intervention. While over time, with an emphasis on building rapport and relationships with key stakeholders, the intervention gained recognition within the team, it is possible that if the intervention had been introduced to a team that already had sport psychology integrated into their programme, it could have yielded stronger effects due to greater understanding of the benefits, and in turn, wider acceptance and engagement.

Lastly, the season long team resilience intervention consisted of only one team whose composition changed throughout the season. While this allowed for a representation of an ecologically valid environment in the context of high-performance women's football, it also resulted in a relatively small sample size for quantitative analyses. Although the intervention was specifically designed to be co-produced using an action-research approach, which involved immersion in the specific context, it is possible that this limited the scope of the conclusions that can be drawn, particularly with regard to the use of quantitative measurement. Thus, by incorporating a range of research designs (such as cross-sectional studies, within group experiments, and between group experiments), researchers can contribute to the expanding body of literature on team resilience interventions. For instance, similar to the study by McEwan and Beauchamp (2020), investigating multiple teams and/or different sports would also enhance the statistical power of the research.

Overall, this thesis represents a substantial advancement in understanding effective team resilience intervention design, implementation, and evaluation. Further inquiry is clearly desirable and there are fruitful opportunities for team resilience researchers; for example, incorporating a sample of coaches and support staff personnel to extend our understanding of

specific needs as well as effective team resilience strategies. In conclusion, the current research lays the groundwork for the development of effective interventions in the field of sport and exercise psychology, focusing on the development of team resilience.

## **5.4 Future Research Directions**

The findings of the thesis suggest several important future research avenues. Critically, researchers could examine team resilience over multiple seasons to gain a greater understanding of its long-term development to establish greater temporal insights. This would provide understandings into the trajectories of team resilience, specifically whether teams a) withstand or resist the impact of adversity with little to no effect on their functioning; b) experience significant deterioration but bounce back to normal level of functioning; c) gradually recover their functioning (Chapman et al., 2020; Gucciardi et al., 2018); or d) experience post adversity growth whereby their functioning actually increases following adversity (Hartwig et al., 2020). However, researchers would still need to carefully select the appropriate tools to observe such changes. For example, as discussed in chapter three, the analysis of the CREST showed a statistically significant decline in the characteristics of team resilience, while the analysis of the process evaluation with participants pointed to the opposite. Therefore, the triangulation of various data collection methods may afford researchers a more comprehensive understanding of the development of team resilience over time.

### **5.4.1 Team Resilience Intervention Development**

In addition to observing team resilience development across multiple seasons, team resilience research would benefit from the development, implementation, and evaluation of additional team resilience interventions in the context of high-performance sports. As suggested in chapter two of the present thesis, researchers should begin by carefully

examining a specific context through conducting a needs assessment or an audit in order to identify contextual stressors. While previous studies explored stressors (Arnold et al., 2016; Arnold & Fletcher, 2012; Hanton et al., 2005; Nicholls et al., 2007; Pascoe et al., 2022; Sarkar & Fletcher, 2014), 2022; Sarkar & Fletcher, 2014), the findings of this thesis suggest that it is crucial to investigate the context specific stressors for the development of team resilience. The findings of chapter three and other team resilience researchers (Bennett et al., 2010; Dubois et al., 2020; Kegelaers, Wylleman, et al., 2021) suggested that co-production approaches, which consider the needs of stakeholders and end-users are the most effective means of developing a team resilience intervention. Therefore, future research could explore similar co-production approaches, but it is strongly advisable to evaluate the readiness of the organisation for change before entering the environment. Alternatively, researchers should dedicate sufficient time to immersing themselves in the environment and observing the specific context prior commencing an intervention.

The majority of studies on team resilience in the context of high-performance sports primarily focused on the perspective of the players, including chapter two of this thesis. The steering group in chapter two provided valuable insights into the knowledge and utilization of team resilience strategies by practitioners operating within sport settings. So, future research in the field of sport could delve into the examination of coaches and sport psychology practitioners' implementation of team resilience strategies within their respective environments. This would significantly contribute to the existing literature by providing valuable information on the effectiveness of these strategies in applied settings, their optimal timing, and the specific contexts in which they prove most advantageous.

#### **5.4.2 Team Resilience Intervention Evaluation**

Additionally, given the concerns raised in this thesis regarding the longitudinal assessment of team resilience in a complex high-performance environment, using a self-

report measure such as the CREST (Decroos et al., 2017), it is imperative that future research be conducted to determine its appropriateness. The findings of this thesis shows that several contextual factors, such as a significant defeat, participant fatigue, and the timing of questionnaire completion, may potentially influence quantitative outcomes. Therefore, researchers should consider whether previous intervention studies that used quantitative measures (Bruner et al., 2020; Kegelaers et al., 2021; D. McEwan & Beauchamp, 2020; Tassi et al., 2023) may have been influenced by similar biases. However, as most existing intervention studies do not span across a season, it is possible that this concern has not been identified before. Nevertheless, it is crucial to gather more information on the optimal timing for team level measurements in the context of high-performance sports.

While this thesis provides valuable insights into the efficacy of quantitative measures of team resilience, researchers who wish to continue using such measures may benefit from incorporating additional complementary metrics that have been positively correlated with team resilience. These areas could include leadership (Fransen, McEwan, et al., 2020), collective efficacy and team cohesion (López-Gajardo, García-Calvo, González-Ponce, Díaz-García, et al., 2022) or even emotional contagion (Clarkson et al., 2024). This could help identify if an intervention is effective in a certain domain e.g., collective efficacy but might not necessarily show up as significant on the overall CREST score. In addition, while there are existing individual resilience scales used in a sport setting (e.g., BRS, Smith et al., 2008, CD-RISC-10, Campbell-Sills & Stein, 2007), the field would benefit from a sport-specific measure for individual resilience to improve the accuracy of measuring resilience within sport. Developing such a measure would enable researchers to explore an interventions effectiveness on multiple levels. However, similar concerns exist around the quantitative measure of individual resilience using self-reports as there is around measuring team resilience.



Given the aforementioned concerns regarding the use of self-report measures for assessing resilience, incorporating physiological markers to capture resilience in intervention studies may also prove advantageous. The utilization of physiological measures, such as cortisol, allows researchers to investigate the effects of stressors at a biological level, thus providing a more precise assessment that is unaffected by contextual factors, psychological factors (Gucciardi et al., 2021), and team dynamics. Previous research demonstrated the efficacy of these approaches (Gucciardi et al., 2021; Meggs et al., 2016), thus prompting further exploration in this area.

Future intervention studies should also include follow-up measurements to assess the enduring effects of team resilience interventions. According to Chmitorz et al. (2018), it is recommended that follow-up measurements for resilience interventions are conducted immediately after the intervention. Additionally, it is advised to conduct repeated follow-up measurements at least six months and 12 months after either exposure to stressor or the implementation of an intervention (Chmitorz et al., 2018). However, it is important to note that team composition may vary in this context, and since team members draw on individual resources when encountering adversity (Gucciardi et al., 2018; Morgan et al., 2013), varying individual resources could potentially influence team resilience if there are changes in team composition.

#### **5.4.3 Sport Psychology in High-Performance Sport Settings**

Lastly, with increased number of studies reporting the challenges of operating in high-performance environments (Champ et al., 2020, 2021), perhaps a call should be made to reform the culture of these teams. The findings of this thesis suggest that a systemic change would be essential in high-performance women's football, alongside policy modifications aimed at fulfilling the duty of care and safeguarding the welfare of individuals engaged in these environments. For example, specific professional development and education should be

provided to those leading professional women's teams to better understand the potential impact of pressure during performance. This may be accomplished through the establishment of steering groups, such as the one discussed in chapter two, in collaboration with the sport's National Governing Body or professional organisations like the British Psychological Society. For instance, implementing leadership development programs for senior leaders and coaches, as well as mandating the active involvement of a sport psychologist in each team's environment, could be beneficial within the context of women's football. This would ensure that there is professional support and education to withstand challenging situations and maintain effective relationships during performance slumps. Nevertheless, while mandating sport psychology support may engender some degree of change within these environments, it should not be treated as a mere formality; rather, practitioners should be fully integrated into high-performance contexts. Consequently, future research could explore the most effective ways of successfully embedding sport psychology within the curriculum of high-performance sport teams.

## **5.5 Applied Implications**

Overall, this thesis has several important practical implications for sport psychologists, sports coaches, and other sport practitioners in the field. For example, the findings emphasise the need for greater collaboration among individuals within the team. This entails fostering a stronger partnership between sport psychologists and coaches, as well as between coaches and players in high-performance women's football. In addition, the findings of this thesis underscore the crucial role of maintaining consistency in the implementation of team resilience strategies throughout the entire season. This includes a continuous emphasis on developing high-quality relationships, team identity, and engaging in simulation training. As a result, individuals working in this setting must not get complacent during the season. Lastly, the research findings shed light on the significance of practitioner

self-care in this context and thus offer practical implications for engaging in effective practices to maintain mental health, wellbeing, and professional effectiveness.

### **5.5.1 Greater Collaboration Between Individuals**

A request for increased collaboration between the members of the multi-disciplinary team and players was observed in all empirical studies conducted within this thesis. In the contextual needs assessment, detailed in chapter two, players expressed that team resilience group sessions held in a classroom setting lacked transferability to team dynamics on the field. Therefore, it is imperative for these sessions that are conducted in a classroom setting to be contextualised to on-pitch dynamics through collaboration with coaches (Dean et al., 2022). This approach is supported by findings of Brown and Fletcher (2017) as they discovered that psychosocial interventions are most effective when implemented in conjunction with coaches. Additionally, this approach would also cater to individual learning styles, as participants in chapter two suggested that some individuals learn better in a classroom setting while others benefit more from practical training. Furthermore, chapter two underscored the critical influence of emotional contagion within the team environment. Players consistently reported a tendency to mirror the emotional tone and behaviours of the coaching staff, highlighting a cascading effect of both positive and negative emotional expressions. This finding reinforces the importance of coaches' emotional regulation and its potential impact on team resilience within high-performance women's football. As such, it is recommended that coaches collaborate with sport psychologists to develop transformational leadership competencies—skills previously identified as central to fostering team resilience (Morgan et al., 2015). Particular emphasis should be placed on enhancing self-awareness and proficiency in verbal, non-verbal, and paraverbal communication, including body language, tone, and emotional expression.

In the intervention study, described in chapter three, the importance of collaboration was highlighted during the implementation of a psychosocial team resilience intervention. A noteworthy example of successful collaboration emerged in the process of determining the most suitable schedule for the team resilience group sessions. This collaborative effort played a significant role in enhancing the perceived effectiveness of the intervention. Additionally, another instance of effective collaboration during the season was observed with the players, more specifically the captain's extensive involvement in the co-production of the intervention. However, it is worth noting that greater levels of collaboration were required between the members of the multi-disciplinary team and the players to further foster the establishment of group structure and social identity within the team (Morgan et al., 2013; Sarkar & Page, 2022). To address this, coaches are encouraged to participate in some of the team resilience group sessions to enhance a sense of togetherness within the team.

In the concluding study, presented in chapter four, which served as a reflection on the implementation of the team resilience intervention, the need for increased collaboration was reemphasised. In particular, it was identified that a stronger partnership between the manager and the sport psychologist would enhance the collaborative approach to intervention development. This, in turn could have potentially influenced the level of support and acceptance of the intervention among the entire multi-disciplinary team. Consequently, coaches and sport psychology practitioners are strongly encouraged to seek common ground and enhance their collaborative efforts in order to benefit the team as a collective.

### **5.5.2 Consistency in the Implementation of Team Resilience Strategies**

The thesis identified several effective team resilience strategies in the context of high-performance women's football, as detailed in section 5.2.5. However, an overarching theme among all the identified strategies is the importance of the consistency in their implementation. For example, the importance of continuous team building resilience

activities to establish a strong foundation for high quality relationships was noted in chapter two and three of the present thesis. The primary objective of these activities is to cultivate social capital, which is essential for developing team resilience (Morgan et al., 2013). Previous research identified team cohesion as a trigger for team resilience (López-Gajardo, García-Calvo, González-Ponce, Díaz-García, et al., 2022), while social capital was recognised as a defining characteristic of team resilience (Morgan et al., 2013). However, it is not a one-off team building resilience day that proves to be effective, but rather the ongoing emphasis placed on such team resilience activities. Consequently, researchers, practitioners, and coaches are encouraged to incorporate these activities into their programmes on an ongoing basis.

Similarly, chapter three identified the benefits that arose not only from the identification of the team's non-negotiables, but also from placing importance on them throughout the entire season. While the importance of group structures and social identity (Morgan et al., 2013) have been noted in the team resilience literature, the thesis identified the continuous need to reflect on them during the season. To illustrate, in the team resilience intervention, group sessions were held to revisit, check, and refine these non-negotiables if needed throughout the season. In addition, chapter two highlighted the significance of not only preparing for on pitch challenges through simulation training, but also maintaining consistency in practicing these strategies. The importance of pressure training has been highlighted by a number of researchers (Kegelaers, Wylleman, et al., 2021; Sarkar & Page, 2022) within the team resilience literature. However, in this context the participants noted that they tend to become complacent with such practices when they experience a momentum or a winning streak which might be due to experienced overconfidence (Mach et al., 2022). Therefore, sport psychologists and coaches must pay close attention to these periods of time

in the season and continue integrating team resilience practices into their training programmes.

### **5.5.3 Practitioner Self-Care**

Based on the findings of chapter four, researchers and sport psychology practitioners are urged to prioritise self-care as a means of managing the challenges that arise in high-performance environments. These environments are commonly described as ruthless, socially complex, and ridden with conflict and power dynamics (Cruickshank & Collins, 2012; Eubank et al., 2014; McDougall et al., 2020). Furthermore, it is unlikely that significant change will occur in these settings, meaning that practitioners will inevitably continue to be confronted with challenges. Therefore, the identification and implementation of effective self-care strategies are vital for the well-being and effectiveness of practitioners operating in high-performance environments. More specifically as self-care has been linked with higher levels of well-being (Colman et al., 2016), reduced stress levels (Zahniser et al., 2017), and improved quality of life (Goncher et al., 2013).

A recent review of the literature on self-care for practitioners identified several domains of self-care, namely awareness, balance, flexibility, physical health, social support, and spirituality, along with corresponding self-care strategies (Posluns & Gall, 2020). These include self-reflection for awareness, engaging in non-work-related passions for balance, setting and reappraising goals for flexibility, maintaining good sleep hygiene for physical health, nurturing social connections for social support, and spending time in nature for spirituality (Posluns & Gall, 2020). Furthermore, evidence-based techniques such as cognitive-behavioural techniques, positive psychology practices, mindfulness meditation, and acceptance and commitment therapy have been recommended for mental health practitioners (Dattilio, 2015). Therefore, practitioners have access to a wide range of evidence-based practices to explore and determine what works best for them. Additionally, Quartiroli,

Wagstaff and Thelwell (2022) suggested that self-care is a subjective experience that should be anchored in an individual's personal and professional preferences for well-being.

However, despite the array of tools and techniques mental health professionals already possess, they often refrain from seeking professional support due to concerns about social stigma, fear of emotions, anticipated risks, and the act of self-disclosure (Bearse et al., 2013). The findings presented in chapter four indicate that engaging in personal therapy can be an effective way of managing difficulties within a high-performance setting. As a result, it is recommended that sport psychology practitioners and researchers actively seek out and engage in personal therapy and investigate its potential benefits to their own mental health, wellbeing, and professional effectiveness.

Lastly, it was observed in chapter four, that every member of the multidisciplinary team is under immense amount of pressure in professional football. Concerns regarding the anxiety caused by perceived weekly performance evaluations, lack of perceived time for personal relationships, and dealing with sleepless nights can have a significantly impact on an individual's overall welfare. Hence, it is highly recommended that individuals operating in sport settings, including physiotherapists, coaches, strength and conditioning coaches, and managers, actively seek out effective self-care strategies to maintain their well-being.

## **5.6 Conclusion**

This thesis aimed to develop, implement, and evaluate a multi-level, season-long team resilience intervention within the context of high-performance women's football. This line of research employed a mixed-methods approach that integrated various data collection methods, including focus groups, performance measures, questionnaires, and a process evaluation.

Key findings from the thesis include the importance of conducting a comprehensive context specific needs assessment prior to intervention implementation as several nuances

were observed that were specific to women's football. Additionally, the thesis highlighted the benefits of employing an action research approach to intervention development, emphasizing a collaborative approach to ensure the intervention's suitability for the context. Moreover, the findings indicate that team resilience can be enhanced via a season-long multi-level team resilience intervention, however, its effectiveness will likely depend on the influence of contextual factors in professional women's football. Furthermore, the findings suggest that to understand temporal changes in team resilience, it's essential to consider a range of complementary measures. Finally, reflecting on my experiences as a researcher-practitioner revealed both challenges and valuable lessons in navigating professional sports settings.

In conclusion, this thesis makes an original contribution to the growing body of literature on team resilience by providing essential practitioner led insights into enhancing team resilience in women's football. Future research should continue this line of investigation around team resilience intervention development and explore what works when in different contexts, the challenges associated with the quantitative self-report resilience measurement and explore effective strategies for successfully embedding sport psychology within high-performance sports teams. Ultimately, fostering team resilience not only enhances athletic performance but also contributes to the holistic development and well-being of athletes, establishing a strong foundation for future success in women's football.

### **5.6.1 Overview of the Concluding Contributions to Knowledge Arising from the Programme of Research**

#### **1. The Development of the First Season-Long Psychosocial Team Resilience Intervention**

- This thesis responded to longstanding calls in the literature (e.g., Chapman et al., 2021; Gucciardi et al., 2018) for longitudinal approaches and presented the first longitudinal intervention designed to enhance team resilience across an entire competitive season in high-performance women's football.



## 2. Methodological Innovation in Intervention Design, Implementation and Evaluation

- The use of Intervention Mapping (IM) added a rigorous, systematic framework for the needs analysis phase identifying context-specific stressors (Chapman et al., 2020)
- Co-production with stakeholders ensured contextual relevance (Dubois et al., 2020).
- Longitudinal assessment tracked impact over time (Gucciardi et al., 2018).
- Novel use of action research enabled ongoing adaptation and reflection.
- Post intervention process evaluation ensured representation of lived experience.

## 3. Insights into Measurement Challenges in Team Resilience Research

- The findings highlighted limitations of relying only on quantitative tools, such as the CREST and BRS, in dynamically capturing team resilience due to:
  - Contextual fluctuations (e.g., timing of survey administration post-defeat).
  - The disconnect between perceived resilience and measured resilience.
- Emphasised the importance of combining multiple complementary measures for a more accurate, holistic understanding of team resilience in women's football.

## 4. Pioneering Team Resilience Research in High-Performance Women's Football

- The thesis contributes a gender-specific perspective lacking in sport psychology research.
- It identified unique stressors in women's professional football (e.g., contractual instability, resource limitations)
- It identified specific strategies that enhanced team resilience in a real-world setting, highlighting the importance of tailored approaches to the team's unique culture.
- Widely promoted practices like shared leadership models were not effective in this case, underlining the need for contextual adaptability.
- The use of a "Resilience Wall", where players selected images of personal and team resilience was perceived as one of the most effective intervention activities.

- Player-led development of "non-negotiables" along with their shared vision, using their own language, drove buy-in and ownership—strengthening team norms.
- Ongoing team building activities (e.g., spaghetti towers, quizzes) created opportunities for team bonding to enhance social capital vital for team resilience.
- These relational foundations served as buffers during adversity, directly supporting performance under pressure and enhancing on-field communication.
- The findings emphasise stakeholder collaboration in designing resilience-building strategies, moving away from one-size-fits-all models.

#### 5. Practical Insights into Effective Intervention Delivery in Sport Psychology

- The findings provided insights into how sport psychology interventions are perceived and received within high-performance women's football.
- Participants preferred private and structured 1-2-1 sessions with a booking system, challenging current norms in applied settings.
- Effective practitioner skills included expertise, confidentiality, and visibility, particularly during emotionally charged or vulnerable moments.
- Team resilience group sessions of 30 minutes, once weekly, were found to be manageable and beneficial in a time-constrained, high-performance setting.
- Small group discussions enhanced openness, connection, and perceived psychological safety—critical precursors to team resilience.

#### 6. Applied Learnings for Practitioners Entering High-Performance Women's Football

- The findings revealed barriers to practitioner integration (e.g., scepticism toward academic and professional credentials, perceived threat of 'outsider' in the team environment, resistance to new approaches).
- Offered strategies for effective intervention delivery, including the importance of:
  - Building rapport with stakeholders.

- Demonstrating value through interpersonal skills and credibility.
- Establishing alliances with key team members (e.g., captains, physiotherapists).

#### 7. Reflections as a Form of Practitioner Development and Knowledge Sharing

- By presenting confessional tales illustrated by creative non-fiction vignettes the findings can be more accessible to non-academic audiences.
- Encourages inclusion of therapeutic support and reflective practice in training pathways (e.g., BPS Stage 2, BASES SEPAR).
- Systemic and policy changes, supported by steering groups and governing bodies, are essential to safeguarding welfare during high-pressure situations and adversity that may negatively impact individuals in high-performance women's football.

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# Appendices

## Appendix 1: Documents Used in Chapter Two

### Gaining Consent from Clubs

Created: 15/10/2021

Dear,

Thank you for expressing your interest to take part in the research study. Prior to completing my research, I am required to gain formal consent via our University ethics process. Please find below a list of key statements that I'd be grateful if you could complete and return to me. Should you have any questions, please do not hesitate to ask.

Consent to facilitate and take part in the research

- ☐ (club's name) agree to take part in the research.
- ☐ I voluntarily agree to facilitate this research within the club.
- ☐ I understand that I can withdraw my facilitation at any time without any consequences of any kind.
- ☐ I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
- ☐ I will assist with distributing the research materials to players and staff members within the club.
- ☐ I understand that all data collected in this study is confidential and anonymous.
- ☐ I understand that it is our club's responsibility to gain consent from under 18 players should we have any in our team.
- ☐ I understand that I am free to contact any members of the research team to seek further clarification and information.

Contact details:

Adrienn Szabadics

[adrienn.szabadics@bucks.ac.uk](mailto:adrienn.szabadics@bucks.ac.uk)

Supervisory team:

Professor Paul Morgan, Dr Fiona McCormack (Buckinghamshire New University) Dr Mustafa Sarkar (Nottingham Trent University), Dr Desmond McEwan (University of Bath)

*Signature of the club representative*

*Signature of researcher*

Date:

Date:



## Information Sheet for Pre-Intervention Study

### General information about the research and the collected research data

#### Purpose of the research and type of research

*The purpose of this study is to develop research in the field of team resilience. By conducting focus groups (each lasting a maximum of 60 minutes) we will explore the team's experiences with setbacks as well as current strategies used to deal with such challenges.*

#### Voluntary nature of participation and procedures for withdrawal from the study

*Your participation in the study is entirely voluntary and you may withdraw your participation anytime up until [30/03/2022] which is the final date before data is analysed. In this case, your transcripts from the audio recorded focus group discussions will be destroyed. You have the right to request access to your personal data and the correction (rectification) or removal (erasure) of such personal data at any time.*

#### Benefits and risks of participating

*The benefits of participation in the planning group involves being able to voice opinions and ideas for the best way a team resilience intervention should be implemented. The only identified risks that could present themselves are the risks of sharing personal ideas on the concepts in discussion. To support negating this risk, it is down to each individual to share as much as they are comfortable with during the focus group discussions. Please note all responses will be transcribed anonymously.*

#### Usage of the data during research, dissemination and storage, including how the information will be shared with participants

*Data collected from the focus group discussions will be transcribed as text and it will be used towards the completion of the doctoral studies as well as for any research publication that might arise from it. Data will be shared anonymously within the studies in the format of quotations. Data will be stored in a password protected computer and retained for at least 10 years from the date of any publication which is based on it.*

#### Contact details of the researcher, as well as their organisation, funding source and how to file a complaint

*Study contact details for further information: Adrienn Szabadics  
[adrienn.szabadics@bucks.ac.uk](mailto:adrienn.szabadics@bucks.ac.uk)*

*To contact the organisation's dedicated Data Protection Officer:  
[DPOfficer@Bucks.ac.uk](mailto:DPOfficer@Bucks.ac.uk)*

*You have the right to lodge a complaint with the Information Commissioner's Office (ICO).*



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## **Informed Consent for Pre-Intervention Study**

**Please tick the appropriate boxes**

### **1. Taking part in the study**

☐ I have read and understood the study information dated [15/10/2021], or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.

☐ I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason. I can withdraw my data up until [30/03/2022] which is the final date before data is analysed.

☐ I understand that taking part in the study involves being part of the planning group and attending up to two audio recorded focus group discussions. The audio recording will be transcribed as text and retained for at least 10 years from the date of any publication which is based on it.

### **2. Use of the information in the study**

☐ I understand that information I provide will be used for research publications.

☐ I understand that personal information collected about me that can identify me, such as my name or where I live, will not be shared beyond the study team.

☐ I consent to the processing of my personal information for the purposes of this research study. I understand that such information will be treated as strictly confidential and handled in accordance with current UK Data Protection legislation.

☐ I agree that my information can be quoted in research outputs.

### **3. Future use and reuse of the information by others**

☐ I give permission for the anonymised transcripts that I provide to be used for future research and learning.



#### 4. Signatures

_____ Name of participant [IN CAPITALS]	_____ Signature	_____ Date
---	--------------------	---------------

_____ Name of parent/guardian if under 18 years old [IN CAPITALS]	_____ Signature	_____ Date
--	--------------------	---------------

For participants unable to sign their name, mark the box instead of signing

☐

I have witnessed the accurate reading of the consent form with the potential participant and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

_____ Name of witness [IN CAPITALS]	_____ Signature	_____ Date
---	--------------------	---------------

I have accurately read out the information sheet to the potential participant and, to the best of my ability, ensured that the participant understands to what they are freely consenting.

_____ Name of researcher [IN CAPITALS]	_____ Signature	_____ Date
--	--------------------	---------------

#### 5. Study contact details for further information

Adrienn Szabadics  
adrienn.szabadics@bucks.ac.uk

**One copy to be kept by the participant, one to be kept by the researcher**



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### Demographic Information Questionnaire

Name	
Date of birth (age)	
Email address	
Football team	
League you play in	
Years involved in the team	
Position	
Team's major achievements	
Focus group date	
Time begun	
Time ended	
Duration of focus group	

## **Focus Group Interview Guide**

### **Welcome**

Hello and Welcome! Thank you for taking the time to join this group discussion about team resilience. My name is ..., I will be facilitating this group discussion.

### **Overview of the topic**

The purpose of this session is to hear about your shared experiences to help design a team resilience training program. We will mention team resilience several times today, and by team resilience we mean sustaining optimal levels of collective functioning or recovering quickly after some degree of deterioration when faced with adversity. Now, this adversity is an event or a situation that caused substantial threat to the collective functioning of your team. For example, key player experiencing a sudden injury in the middle of the match.

The discussion will be split into 3 sections. First, we will explore you shared experiences with a setback/challenge your team has collectively faced. Then we will explore some of the behaviours you might engage in before / during/ and after such challenges. Lastly, your views on the benefits of an effective team resilience intervention within your team. At the end of each section, there will be an opportunity to add any further information you might have missed, before moving on to the next section.

### **Ground rules**

There are no right or wrong answers, so I hope, that you will answer the questions in a candid and straightforward way. You don't need to agree with others, but please listen respectfully as others share their views. If you have any questions throughout the discussion, please don't hesitate to ask. I am recording the discussion because I don't want to miss any of your comments. We will be on a first name basis, but I won't include any names in the research outputs, so I can guarantee complete confidentiality. In the presentation of the results, I may want to use selected quotes from our discussion to demonstrate important ideas, but these will be strictly anonymous. Your participation is entirely voluntary, and you are free to decline to answer any questions I will be asking or stop the discussions at any point. If there any questions that you are not comfortable answering I would rather you decline to comment than tell me what you think I or others might want to hear. So, if you would prefer not to answer a question, simply state "no comment" and I will move straight onto the next question.

### **Do you have any questions before we start?**

Well, let's begin. I've placed some name cards on the table in front of you to help me remember your names. I would be grateful if you could please write your names on it, I will write my name on my name card too

Aim	Questions	Probes
<b>1.Context of adversity</b>  (10 mins)	1. In 60 seconds, can you give an insight into your team and your teams current goals?	<ul style="list-style-type: none"> <li>What are you striving for?</li> </ul>
	2. Can you describe a recent experience when your team collectively faced a <u>setback/significant stressor</u> ? (This could be a key player getting injured, conceding a goal in the last minute, a significant team loss, etc.)	<ul style="list-style-type: none"> <li>Can you give an insight into what functioning was like <u>prior</u> to this event?</li> <li>Was it a <u>sudden</u> breakdown in functioning or an <u>ongoing</u> stressor? Adversity types – <u>acute, short, chronic</u>, experienced by all or some?</li> <li>Following this setback, how did you get back to normal levels of functioning? (<u>Withstand, bounce back, recover, increased functioning</u>)</li> <li><u>Situation awareness</u> – individual perceptions/any explicit recognition or communication? How was this raised? Understanding evident? How was this developed? Intervention implications? (e.g., how did you develop? When? Time of season?) What type of stressor? (Spontaneous...or slowly?) Planning/reflection</li> </ul>
	Before we move on, would anybody like to add anything?	
<b>2.Preparing/ Managing/ Learning</b>  (20 mins)	The next questions will relate to some of the behaviours you might engage in before/during/and after your team has experienced a significant setback/challenge. 2. Can you give an insight into how your team would <u>prepare</u> for these challenges you've just mentioned?	<ul style="list-style-type: none"> <li>(Identify risks, assess whether ready)</li> <li><u>Time</u> of the season?</li> <li>Led by <u>who</u>?</li> </ul>

	3. Within your team, you all have different <u>individual</u> strengths, skills, knowledge, abilities etc. Can you tell me how you use these to help withstand the types of setbacks you've discussed?	<ul style="list-style-type: none"> <li>• how do you make use of the <u>individual knowledge, skills, abilities etc</u>?</li> <li>• <u>Diversity</u> of KSAOs?</li> <li>• <u>Complementary</u> skill sets/knowledge?</li> <li>• <u>Team composition</u>?</li> <li>• <u>Interdependent goals</u>?</li> <li>• Types of adversity important?</li> <li>• Implications for intervention planning?</li> </ul>
	4. Collectively as a team as well as drawing on your individual strengths, how do you <u>manage or respond</u> to the challenges you've mentioned?	<ul style="list-style-type: none"> <li>• In your experience, are individuals all <u>aware</u> of what's happening in an adversity? Do you <u>exchange this information</u> between each other?</li> <li>• In what way does <u>leadership</u> influence your response</li> <li>• to what extent does the team's <u>knowledge</u> of the situation align? (e.g. knowing what response to instinctively take)</li> </ul>
	5. How does your team ensure <u>learning</u> takes place after experiencing some of the challenges we've been discussing?	<ul style="list-style-type: none"> <li>• Can you give an insight into any team <u>reflections and/or debriefs</u> your team might engage in following an adverse event, like the ones we've been discussing?</li> </ul>
	Before we move on, would anybody like to add anything?	
<b>3.Intervention effectiveness</b> (20 mins)	<p>The next questions will relate to your experiences with effective interventions.</p> <p>6. Drawing on your shared experiences, what strategies help your team withstand adversity?</p>	

	7. We know that resilience is something that <u>emerges</u> over time, can you tell me how you've successfully developed a process where your <u>thoughts</u> are on the same page when under pressure?	<ul style="list-style-type: none"> <li>• How did you <u>develop</u> this? Any specific examples?</li> <li>• How do you know?</li> <li>• How about shared <u>emotions</u>? Affective coordination</li> <li>• How about team <u>behaviour</u>? What did you do to develop this? Behavioural coordination</li> <li>• Cognitive coordination (<u>thoughts</u>)</li> <li>• Implications for intervention mapping? How developed? Types of practices?</li> </ul>
	8. If there was a training program that would enhance your team's resilience, what would you want to see as the <u>outcome</u> ? what <u>difference</u> would that make? Top 2 priority	<ul style="list-style-type: none"> <li>• How would it <u>help</u>?</li> <li>• What <u>benefits</u> would you see?</li> <li>• What would you envision the <u>goal</u> of a team resilience training program would be?</li> <li>• How would it fit into your <u>current program</u>? Who would it be best delivered by?</li> <li>• Have you heard of any similar programs?</li> </ul>
	Before we move on, would anybody like to add anything?	
<b>Closing</b>	9. Is there anything we haven't mentioned today that you believe would be important to keep in mind when designing a team resilience training program?	

## Appendix 2: Documents Used in Chapter Three



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### Information Sheet for a Team Resilience Intervention Study

#### General information about the research and the collected research data

##### Purpose of the research and type of research

*The purpose of this study is to implement and evaluate a team resilience intervention. For the evaluation, regular (bi-monthly) questionnaires will take place, as well as group discussions to assess the team's experiences with the intervention and adapt if necessary.*

##### Voluntary nature of participation and procedures for withdrawal from the study

*Your participation in the study is entirely voluntary and you may withdraw your participation anytime up until [01/09/2023] which is the final date before data is analysed. In this case, your transcripts from the audio recorded focus group discussions will be destroyed. Due to the questionnaires being anonymous, it will not be possible to retrieve them. You have the right to request access to your personal data and the correction (rectification) or removal (erasure) of such personal data at any time.*

##### Benefits and risks of participating

*The benefits of participation in the intervention involves being able to develop psychological skills. The only identified risks that could present themselves are the risks of sharing personal ideas on the concepts in discussion. To support negating this risk, it is down to each individual to share as much as they are comfortable with during the focus group discussions. Please note all responses will be transcribed anonymously. All questionnaire responses will be collated anonymously.*

##### Usage of the data during research, dissemination and storage, including how the information will be shared with participants

*Data collected from questionnaires will be collated anonymously and the focus group discussions will be transcribed as text and it will be used towards the completion of the doctoral studies as well as for any research publication that might arise from it. Data will be shared anonymously within the studies in the format of quotations. Data will be stored in a password protected computer and retained for at least 10 years from the date of any publication which is based on it.*

Contact details of the researcher, as well as their organisation, funding source and how to file a complaint

*Study contact details for further information: Adrienn Szabadics*  
[adrienn.szabadics@bucks.ac.uk](mailto:adrienn.szabadics@bucks.ac.uk)

*To contact the organisation's dedicated Data Protection Officer:*  
[DPOfficer@Bucks.ac.uk](mailto:DPOfficer@Bucks.ac.uk)

*You have the right to lodge a complaint with the Information Commissioner's Office (ICO).*





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## Informed Consent for a Team Resilience Intervention Study

Please tick the appropriate boxes

### 6. Taking part in the study

☐ I have read and understood the study information dated [21/07/2022], or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.

☐ I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason. I can withdraw my data up until [30/07/2023] which is the final date before data is analysed.

### 7. Use of the information in the study

☐ I understand that information I provide will be used for research publications.

☐ I consent to the processing of my personal information for the purposes of this research study. I understand that such information will be treated as strictly confidential and handled in accordance with current UK Data Protection legislation.

### 8. Future use and reuse of the information by others

☐ I give permission for the anonymised transcripts that I provide to be used for future research and learning.

### 9. Signatures

_____ Name of participant [IN CAPITALS]	_____ Signature	_____ Date
---	--------------------	---------------

---

Name of researcher  
[IN CAPITALS]

---

Signature

---

Date

**One copy to be kept by the participant, one to be kept by the researcher**

## Demographic Information

**Self-generated ID number:** \_\_\_\_\_

(E.g., if your initials are MS and you are born on the 22nd, your self-generated ID number would be MS22)

**Today:** \_\_\_\_\_ date \_\_\_\_\_ month \_\_\_\_\_ year

**Name:** \_\_\_\_\_ **Age:** \_\_\_\_\_ years

**Nationality:** \_\_\_\_\_

**Club:** \_\_\_\_\_

**Role in the team (e.g., captain, player, physio):** \_\_\_\_\_

**Length of time playing/working in this sport:** \_\_\_\_\_ years

**Length of time playing/working for this club:** \_\_\_\_\_ months

**Current performance/employment status (please circle one):**   part time   full time  
**other (please specify)** \_\_\_\_\_

**Highest performance level achieved (e.g., international, wsl, championship):**

\_\_\_\_\_

## CREST Inventory

The word ‘team’ – used in most of the questions – refers to all persons involved such as the players, coaches, and team managers. When you are part of more than one team, please respond for the team []. The following statements describe some of the possible characteristics that sports teams may display when they experience pressure. Please keep in mind those moments that your team was under pressure in the past month and indicate the extent to which you agree or disagree with the following statements. 1 represents ‘strongly agree’, 7 represents ‘strongly disagree’.

In the past month, when my team was under pressure ...		strongly strongly agree disagree			neutral			
1	the team was able to focus on what was important	1	2	3	4	5	6	7
2	teammates started to communicate negatively with each other	1	2	3	4	5	6	7
3	team members fought for each other	1	2	3	4	5	6	7
4	the team lost its confidence	1	2	3	4	5	6	7
5	I felt that I could count on other members of the team	1	2	3	4	5	6	7
6	the level of collective effort in the team dropped	1	2	3	4	5	6	7
7	effective communication kept players’ minds focused on the task at hand	1	2	3	4	5	6	7
8	team members started to mistrust one another	1	2	3	4	5	6	7
9	members of the team were committed to contributing to the collective belief of the team	1	2	3	4	5	6	7
10	team members fought hard to not let each other down	1	2	3	4	5	6	7
11	individuals forgot their role in the team and did not know what they had to do	1	2	3	4	5	6	7
12	the challenges we have gone through as a team helped us learn to withstand pressure	1	2	3	4	5	6	7
13	there came no support from teammates	1	2	3	4	5	6	7
14	the strong bonds between teammates helped the team during difficult times	1	2	3	4	5	6	7
15	the team could not persist through the most difficult moments	1	2	3	4	5	6	7
16	the team was able to reset their focus to alleviate pressure	1	2	3	4	5	6	7
17	the team gained belief by working together to withstand pressure	1	2	3	4	5	6	7
18	the team drew on an agreed team vision, values, and guiding behavioural principles	1	2	3	4	5	6	7
19	the team did not believe in its ability to withstand pressure	1	2	3	4	5	6	7
20	the team reflected on a shared team vision	1	2	3	4	5	6	7

## Brief Resilience Scale (BRS)

<b>Please respond to each item by marking <u>one box per row</u></b>		<b>strongly disagree</b>	<b>disagree</b>	<b>neutral</b>	<b>agree</b>	<b>strongly agree</b>
<b>1</b>	I tend to bounce back quickly after hard times					
<b>2</b>	I have a hard time making it through stressful events					
<b>3</b>	It does not take me long to recover from a stressful event					
<b>4</b>	It is hard for me to snap back when something bad happens					
<b>5</b>	I usually come through difficult times with little trouble					
<b>6</b>	I tend to take a long time to get over set-backs in my life					

**Thank you!**

**Please hand the forms back to Adrienn.**

## **Information sheet for process evaluation**

### **General information about the research and the collected research data**

#### **Purpose of the research and type of research**

The purpose of this study is to evaluate the season-long team resilience intervention. By conducting semi-structured interviews (each lasting approximately 60 minutes) with photo elicitation we will explore your experience of the intervention.

#### **Voluntary nature of participation and procedures for withdrawal from the study**

Your participation in the study is entirely voluntary and you may withdraw your participation anytime up until [01/09/2023] which is the final date before data is analysed. In this case, your transcripts from the audio recorded interviews discussions will be destroyed. You have the right to request access to your personal data and the correction (rectification) or removal (erasure) of such personal data at any time.

#### **Benefits and risks of participating**

The benefits of participation in the interview involves being able to voice opinions and ideas for the best way a team resilience intervention should be implemented. The only identified risks that could present themselves are the risks of sharing personal ideas on the concepts in discussion. To support negating this risk, it is down to each individual to share as much as they are comfortable with during the interviews. Please note all responses will be transcribed anonymously.

#### **Usage of the data during research, dissemination and storage, including how the information will be shared with participants**

Data collected from the interview discussions will be transcribed as text and it will be used towards the completion of the doctoral studies as well as for any research publication that

might arise from it. Data will be shared anonymously within the studies in the format of quotations. Data will be stored in a password protected computer and retained for at least 10 years from the date of any publication which is based on it.

**Contact details of the researcher, as well as their organisation, funding source and how to file a complaint**

Study contact details for further information: Adrienn Szabadics  
adrienn.szabadics@bucks.ac.uk

To contact the organisation's dedicated Data Protection Officer: DPOfficer@Bucks.ac.uk  
You have the right to lodge a complaint with the Information Commissioner's Office (ICO).

**My tick below verifies the following**

*- I have read and understood the study information sheet. I have been able to ask questions about the study and my questions have been answered to my satisfaction.*

☐ I agree to take part

I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason. I can withdraw my data up until [01/09/2023] which is the final date before data is analysed.

☐ I consent

I understand that taking part in the study involves taking part in a semi-structured interview (lasting approximately 60 minutes) to explore your experience of the intervention. Data will be audio recorded and transcribed as text anonymously.

☐ I understand

I understand that information I provide will be used towards the completion of the doctoral studies as well as for any research publication that might arise from it. Data will be shared anonymously within the studies in the format of quotations. Data will be stored in a password protected computer and retained for at least 10 years from the date of any publication which is based on it.

☐ I understand

I consent to the processing of my personal information for the purposes of this research study. I understand that such information will be treated as strictly confidential and handled in accordance with current UK Data Protection legislation. I agree that my information can be quoted in research outputs.

☐ I consent

I give permission for the anonymized transcripts that I provide to be used for future research and learning

☐ I give permission

Name

Date



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## Process Evaluation Interview Guide

### Introduction

Thank you for taking the time to take part in today's discussion. The purpose of our conversation today is to evaluate the team resilience program that was implemented during the season. I am keen to hear about your experience of taking part in the activities and discussions, find out what worked and what could be improved. Some questions will be supplemented with photographs to aid the discussion.

There are no right or wrong answers, so I hope that you will answer the questions in a candid and straightforward way. If you have any questions throughout the discussion, please don't hesitate to ask. I am recording the conversation because I don't want to miss any of your comments, but I won't include any names in any of the research outputs. I may use selected quotes from our discussion to demonstrate important ideas, but these will be strictly anonymous. Your participation is entirely voluntary, and you are free to decline to answer any questions I will be asking or stop the discussion at any point.

Do you have any questions before we start the discussion?

### Interview questions

Area	Questions	Probes
Intervention Context	<ol style="list-style-type: none"><li>1. Can you tell me how did my work on team resilience focusing on challenges and setbacks fit into this environment?</li><li>2. Can you tell me what you thought of the design/implementation of the program?</li><li>3. What difference did it make having me here? Can you give me an example ...</li></ol>	<ul style="list-style-type: none"><li>-Duration and frequency of the sessions</li><li>-day to day commitment</li><li>-how it was designed</li><li>-Quite natural or separate</li><li>-Type of activities</li><li>-Feedback given via email to coaches post-match etc.</li></ul>

Intervention Content	<p>4. Throughout the season we've done a number of different activities to enhance the team's resilience. Can you tell me what type of sessions/activities made the biggest difference to you during pressure.</p> <ul style="list-style-type: none"> <li>- Photo elicitation: 3-0 win against Birmingham and togetherness (one of their non-negotiables) video beforehand</li> <li>- Photo elicitation: non-negotiables</li> <li>- Photo elicitation: team achievement wall – what was it about this content that helped you.</li> </ul>	<ul style="list-style-type: none"> <li>-Give me an example</li> <li>-time of the season</li> <li>-Was addressing team resilience relevant? Why?</li> <li>-Was focusing on your 3 non-negotiables at the start of the season appropriate?</li> <li>-Was the team achievement wall introduced at the right time?</li> <li>-more/less useful</li> <li>-what difference did it make during pressure</li> </ul>
Mental Models	<p>5. How ready did you feel the team was for the activities?</p> <p>6. Did you feel that the team benefitted from the activities? What was the biggest benefit? Having gone through the team resilience training program, do you feel that the team could take this on themselves.</p> <p>7. Did you notice you or the team do anything differently as a result of the intervention/team resilience training program? (impact)</p>	<ul style="list-style-type: none"> <li>-Openness to it, engagement</li> <li>-How did you perceive the teams motivation towards the sessions?</li> <li>-Did you feel that the coaches, teammates supported this intervention/team resilience activities?</li> <li>-What did you perceive that the activities were trying to achieve?</li> <li>-all of it, some of it</li> <li>-what made the greatest impact, anything had no impact</li> </ul>

# Example NVivo Qualitative Analysis

The screenshot displays the NVivo software interface for a qualitative analysis project titled "Process Evaluation.nvpx". The interface is divided into several sections:

- Top Menu Bar:** Includes Home, Edit, Import, Create, Explore, Share, and Modules. A search bar is located on the right.
- Left Sidebar:** Contains navigation menus for Import, Organize, and Explore. The "Organize" menu is currently selected, showing a hierarchy of codes.
- Main Area:** Displays a list of codes on the left and a detailed view of a selected code on the right.
  - Code List:** Shows a hierarchy of codes: Intervention Delivery > Barriers in intervention... > buy-in. Other codes include group sessions felt s..., inadequate facilities, limited time for deliv..., players mood influen..., Enablers in intervention..., Intervention content, Scheduling of the grou..., Intervention Effectiveness, Intervention Improvements, and miscellaneous.
  - Selected Code View:** The "buy-in" code is selected, showing a detailed view of its references.
    - Reference 1:** "Files\Interviews\Participant 1" with 1 reference coded, 1.05% coverage. The text excerpt is: "I think some people maybe, you might not be able to get them to engage or anything like that. Like that's just, you're gonna get people in the team like that that you're not gonna have everyone like, not everyone's the same, so everyone's gonna like react differently to it".
    - Reference 2:** "Files\Interviews\Participant 10" with 2 references coded, 0.71% coverage. The text excerpt is: "like this is in terms of all the meetings. Like I enjoy them, but other people don't. But others people just weren't listening as much as they could have been."
    - Reference 3:** "Files\Interviews\Participant 11" with 2 references coded, 3.33% coverage. The text excerpt is: "But then also with that time I think the group, some are involved and some are wanting to be a part of it and buying into it and then obviously others don't. So it's how... if you've got a short space of time, how you manage the group to get as much out of it as possible, I think."

## Appendix 3: Example Intervention Content from Each Month

### September (Group Structure)

Friday 2 September 2022

**Session Plan:** Demonstrating Togetherness Under Pressure

**Objective:**

- To identify and agree on specific behaviours that demonstrate togetherness, especially when facing adversity or pressure.

**Duration:**

- Total session time: 30 minutes

**Materials needed:**

- Whiteboard/Flipchart
- Markers/Pens
- Papers

#### 1. Introduction

- Team Vision and Non-Negotiables: Remind the team of their shared goal—promotion—and reinforce the three non-negotiables they've agreed on:
  1. Togetherness
  2. Accountability
  3. Mentality
- Explain the Focus: Today's session will focus on how they can demonstrate togetherness (one of their non-negotiable) in the face of pressure

#### 2. Group discussion: How to demonstrate togetherness under pressure

a. Small group work

- Break into groups: Divide the team into smaller groups of 3-4 players.
- Prompt: Ask them to discuss the following question:
  - “How can you demonstrate togetherness when the team is under pressure?”
    - What specific behaviours can you exhibit individually and as a team to show that you're united, especially when things get tough?”
- Encourage players to think of both on-field and off-field behaviours
- Each group should come up with 3-5 behaviours that they think are important to demonstrating togetherness under pressure.

b. Group feedback and team discussion

- Sharing Ideas: Have each small group share their ideas with the entire team. Write down key points on a whiteboard or flipchart as they present, ensuring that all behaviours are captured.
- Team Discussion: After hearing from each group, open up the discussion for the team to reflect and build upon the behaviours shared.

#### 3. Action planning:

- Agree on a specific set of behaviours that individuals and the team collectively could commit to demonstrating when under pressure.

### October (Group Structure)

**Friday 21 October 2022**

**Session Plan: Demonstrating Mentality Under Pressure**

**Objective:**

- To understand, identify and agree on specific behaviours that demonstrate mentality, especially when facing adversity or pressure.

**Duration:**

- Total session time: 30 minutes

**Materials needed:**

- 3 questions printed on papers to distribute among the team
- Whiteboard/Flipchart
- Markers/Pens
- Papers

**1. Introduction**

a. Recap of togetherness:

- Start with a quick recap: Begin by briefly revisiting the team's commitment to behaviours that demonstrate togetherness. Ask the group if there's anything else they'd like to add or reinforce on togetherness.
- Briefly remind the team of their shared vision and the rest of the non-negotiables.

b. Shift to mentality:

- Transition into the topic of mentality by stating that it is another non-negotiable that the team had chosen and agreed on.
- Introduce the session's goal: To understand what demonstrating mentality looks like under pressure.

**2. Group discussion: How to demonstrate mentality under pressure**

a. Small group work

- Divide the team into smaller groups of 3-4 players
- Distribute the following discussion questions (printed out on pieces of paper) and allow groups to explore them:
  1. What does 'mentality' mean for you?
    - Encourage players to think about their personal definition of mentality
  2. What does 'mentality' look like on and off the pitch?
    - Ask players to identify specific actions or behaviours that demonstrate mentality.
  3. How do you feel if somebody is not demonstrating those behaviours? How can you support them?

b. Group feedback and team discussion

- Sharing ideas: Have each small group share their ideas with the entire team. Write down key points on a whiteboard or flipchart as they present, ensuring that all behaviours are captured.
- Team discussion: After hearing from each group, open up the discussion for the team to reflect and build upon the behaviours shared.

**3. Action planning:**

- Agree on a specific set of behaviours that individuals and the team collectively could commit to demonstrating when under pressure.
- Display these behaviours in their changing rooms following the session

## November (Social Capital)

**Friday 18 November 2022**

**Session Plan:** Building Marshmallow Towers (ask for coaching staff to join)

**Objective:**

- To enhance teamwork, communication, and problem-solving under pressure
- To foster creativity, flexibility
- To encourage adaptation in the face of challenges and work cohesively under time constraints

**Duration:**

- Total Session Time: 30 minutes

**Materials Needed:**

- 20 sticks of spaghetti per group
- 1 Sellotape per group
- 1 ball of string per group
- 1 marshmallow per group
- Scissors
- Whiteboard/Flipchart for debrief notes

### 1. Introduction

a. Introduction to the activity:

- Explain the purpose: Begin by introducing the Marshmallow Tower Challenge. Let the players know this activity is designed to work on teamwork, creativity, and communication to contribute to team resilience. The goal is to build the tallest freestanding structure using only the materials provided—spaghetti, string, tape, and a marshmallow.
- Relate it to football: Explain how this activity will help them in football by improving collaboration, problem-solving, and maintaining focus under time pressure. Just like in a football match, the game will require flexibility, creativity, and the ability to adapt when things don't go as planned. Highlight team resilience.

b. Grouping:

- Split the players into teams of 3-4 (depending on total group size). Ideally, mix up players who don't usually work together to encourage new dynamics.

### 2. Instructions & Activity

a. Clear Instructions:

- Explain materials provided
- Objective: The goal is to create the tallest freestanding tower that can support the marshmallow on top. The tower must be entirely made from the materials provided.
- Time limit: The challenge will last for 15 minutes.
- Conditions:
  - The marshmallow must be placed at the top of the tower.
  - The tower must be free-standing (no leaning against any objects or walls).
  - Teams are allowed to break the spaghetti, tape, and string into smaller pieces if necessary.
  - The tower must remain standing for at least 5 seconds after the time is up for it to count.

b. Walk around to observe group dynamics and how they're managing communication, planning, and roles within each team. Allow the activity to unfold.

c. The winning team gets the remaining bag of marshmallows

### **3. Team reflection:**

- Gather the team together for a debriefing session. Ask reflective questions to draw connections to football and discuss the key takeaways:
  1. What did you learn about your team's communication during the activity?
    - Did everyone share their ideas? Was there a leader? How did the team manage differences in ideas?
  2. How did you handle challenges or setbacks when the tower collapsed or didn't go as planned?
    - How did you adapt or problem-solve on the fly?
  3. What roles did different players take on in the group?
    - Who was the leader? Who came up with creative solutions? Did anyone step up to help when things weren't going right?

## **December (Social Capital)**

**Friday 9 December 2022**

**Session Plan:** Team Quiz (ask coaching staff to join)

### **Objective:**

- To build team cohesion by learning more about each other through fun and interesting facts.
- To encourage communication and bonding within the team. Resources they can draw on under pressure. Team resilience.
- To celebrate the individuality of players and staff, while also creating a sense of unity.

### **Duration:**

- Total Time: 30 minutes

### **Materials needed:**

- Laptop + Quiz ready as ppt
- TV & HDMI cable
- Pen and papers for each team

### **Instructions:**

1. Divide the team into groups of 4-5 people.
2. Each slide will feature a set of facts, with a focus on a different group (staff, goalkeepers, midfielders, forwards, defenders).
3. For each round, the groups will guess which fact belongs to which person. They will write down their guesses and at the end of each round, the answers will be revealed.

### **Team reflection:**

- Highlight how learning these unique facts about one another strengthens their connection, just like how understanding each other's strengths and personalities helps on the pitch under pressure.

## **January (Group Structure)**

**Friday 27 January 2023**

**Session Plan:** Mid-season reset to enhance group structure

### **Objective:**

- To refocus the team on their shared vision and re-establish the importance of their non-negotiables (mentality, togetherness, and accountability).

**Duration:**

- Total time: 30 minutes

**Materials needed:**

- Pens for each group
- Printed worksheets

**1. Introduction**

- Purpose: Reminding players of the importance of resetting mid-season to ensure the group continues to stay aligned with their goals.
- Content:
  - Explain that the session will be focused on reinforcing the team's non-negotiables, and focused on performance under pressure
  - Highlight the three non-negotiables:
    - **Mentality**
    - **Togetherness**
    - **Accountability**

**2. Group Discussion**

- Divide the team into 3 groups, each assigned to one of the non-negotiables: Mentality, Togetherness, or Accountability.
- Each group to be handed the printed-out worksheet and should answer the following questions:
  - What is going well in practice regarding this non-negotiable?
  - What could be better regarding this non-negotiable?
  - What is it the team should keep doing regarding this non-negotiable?
  - What should the team change regarding this non-negotiable?

**3. Group Feedback**

- Each group to feedback their thoughts on the four areas.
- Team discussion around these non-negotiables and their relevance to performing under pressure.
- Completed worksheets to be displayed in their changing rooms.





# MENTALITY



Winning games  
↳ latter stages

What is going well

Start games better  
↳ concede goals in first half

↳ against lower ranked teams (Blackburn / MK Dons)

What could be better

Keep winning +  
keep consistency/  
form

Will keep doing

Streetwise game  
management  
↳ slow down / speed  
games up  
↳ pace (a) amount  
of foul disrupted game

Shared mentality → all kinds  
↳ go into every game with the  
same mentality  
↳ everyone says we do  
but

Will change/do differently

Action Plan:

## ACCOUNTABILITY

<ul style="list-style-type: none"> <li>- Individual taking responsibility for errors on pitch</li> <li>- Routines (game / training prep)</li> </ul> <p style="text-align: center;">What is going well</p>	<ul style="list-style-type: none"> <li>- Asking questions.</li> <li>- 1% (Extras).</li> <li>- Less blame</li> <li>- Take responsibility</li> </ul> <p style="text-align: center;">What could be better</p>
<ul style="list-style-type: none"> <li>- Monitoring (honesty)</li> <li>- Doing the right things away from here.</li> </ul> <p style="text-align: center;">Will keep doing</p>	<p style="text-align: center;">don't be afraid to speak out to ideas to make team better (not personal)</p> <p style="text-align: center;">open environment - no judgement</p> <p style="text-align: center;">Will change/do differently</p>

Action Plan:



## UNITY ♡

NEW PEOPLE SETTING  
NEW.

OPEN COMMUNICATION

What is going well

What could be better

PRAISING/ENCOURAGING  
EACH OTHER.

SOCIAL EVENT OUTSIDE  
OF FOOTBALL.

Will keep doing

Will change/do differently

Action Plan:

## **February (Group Structure)**

**Friday 3 February 2023**

**Session Plan:** What kind of teammate do you want to be?

**Objective:**

- To foster a stronger sense of support among teammates, especially during pressure situations or when the team is going through a challenging period (requested and co-created with the manager)

**Duration:**

- Total time: 5 minutes in the team's normal meeting with staff
- Follow-up session (group discussion): 30 minutes (scheduled for the next session)

**Materials needed:**

- Pens (one for each player)
- Pieces of paper (one for each player)
- Piggy bank (or any small box/envelope to collect responses anonymously)
- Black marker
- Larger piece of paper, cardboard, or display board (for collating responses in the next session)

**1. Introduction:**

- Explain the purpose of the task. The exercise is designed to help players reflect on the kind of teammate they want to be in challenging situations.

**2. Activity:**

- Step 1: Hand each player a piece of paper and a pen.
- Step 2: Ask players to think about what kind of teammate they want to be, especially in challenging or high-pressure situations.
- Step 3: Ask them to write down their answers privately, making sure they reflect on their personal role in the team's dynamic and the kind of teammate they aspire to be.
- Step 4: Once everyone has written down their responses, instruct them to fold their papers and place them into the "team piggy bank" (or box/envelope).
- Emphasise that the task is anonymous, and encourage everyone to take their time to reflect thoughtfully, knowing their ideas will be used to foster a stronger, more supportive team culture, team resilience

**3. Follow-up Session (20 minutes)**

**1. Collating Responses**

- Step 1: Before the next session, collect the papers from the piggy bank and review all the responses anonymously.
- Step 2: Use a black marker to write the responses on a larger piece of paper, or input them into a digital tool (e.g., Google Docs or Word Cloud generator) if preferred.
- Step 3: If using a word cloud generator, the most common responses will naturally appear larger.

**2. Sharing the Responses**

- Display the responses to the team in the meeting, either by showing the written responses on a board or using a projector/screen if you've used a word cloud tool.

- [illegible]

- To reflect on and celebrate moments of resilience, both individual and team, that occurred throughout the season.
- To create a Resilience Wall that visually represents the team's resilience moments, serving as a constant reminder of their strength and perseverance

**Duration:**

- Total Session Time: 30 minutes + 30 minutes next session for everyone to display photos

**Materials Needed:**

- Sticky notes for each player
- Pens
- Photos of the team (to be printed out for the next session to create the “Resilience Wall”)
- Picture frames (for next session)
- Double sided picture hanging tape

**1. Introduction****Purpose:**

- Let the players know that today’s session will focus on resilience—what it means and how they’ve shown it so far in the season
- Share the idea behind the Resilience Wall. Explain that it will be a space where each player's and the team's moments of resilience will be captured visually, creating a permanent reminder of how they’ve overcome challenges throughout the season.
- Remind players of resilience definition

**2. Reflecting on Resilience Moments****a. Individual Reflection**

- Distribute Sticky Notes: Give each player sticky notes and ask them to reflect their resilience moments whether they choose a personal or team that is up to them. (e.g., personal resilience: a moment where they personally overcame adversity or challenge such as overcoming an injury; team resilience: a time when the team, as a whole, showed resilience such as coming from behind in a game, staying united after a loss, supporting each other during tough times, etc.).

**b. Group Reflection**

- Once everyone has written their moments, invite each player to share one resilience moment (either personal or team-related) with the group.
  - What did you learn about yourself through these resilience moments?
  - What did you learn about the team’s resilience?

**3. Creating the Resilience Wall (next session)**

- After the session, gather all the notes with the resilience moments. For the next session ask players to text me their chosen photos. E.g. if they selected a certain game as their resilience moment, find a photo of them from that game.
- Print and bring the photos along for the next session and hand them out to the players (their own resilience moments)
- Ask them to attach them to the wall
- Let the players walk by and interact with the wall, reflecting on the moments as they see their photos
- (Consider revisiting the wall in future sessions—adding new moments of resilience as the season goes on)

**April (Collective Efficacy)**

**Friday 21 April 2023**

**Session Plan:** End-of-season reflection

**Objective:**

- To reflect on the challenges the team faced during the season, both individually and collectively.
- To explore how these challenges were overcome, emphasizing resilience, adaptation, and teamwork.
- To identify key learnings from the season and how they can be applied moving forward to enhance future performance.

**Duration:**

- Total Session Time: 30 minutes

**Materials Needed:**

- Whiteboard/Flipchart
- Markers/Pens
- Paper

**1. Introduction**

- Greet the team and explain that this session is a time to reflect on the season—the ups, the downs, and everything in between.
- Emphasise that reflection is crucial for growth and development, both as individuals and as a team. It helps identify strengths, areas for improvement, and the strategies that worked well – highlight journey of resilience.

**2. Group reflection**

a. Small group reflection: divide the team into small groups (3-4 players per group) and give each group a set of guiding questions.

- What were some of the biggest challenges you personally faced this season?
- What were some of the biggest challenges the team faced as a whole?
- How did you personally overcome the challenges you faced this season?
- How did the team overcome collective challenges?
- What have you learned from the challenges you faced this season?
- What has the team learned from overcoming challenges?

b. Group feedback and team discussion

- Sharing ideas: Have each small group share their ideas with the entire team.
- Team discussion: After hearing from each group, open up the discussion for the team to reflect.

**3. Action Planning**

a. Personal action plans

- Ask each player to write down one thing they will focus on personally to improve for the next season.

b. Team action plan

- As a group, discuss one team goal that will help the team continue to grow and overcome challenges next season. Write it down.

## Appendix 4: Example Match-day Observation During the Intervention

28/08/22

Sunday

[opposition] vs [intervention team]

Lost [score]

- I wasn't on the team sheet, so I had to step off the pitch and watch the game from behind the signs
- Big injury in the last couple minutes (opposition)

I felt much more comfortable with 'hanging around' before the game, thought I still didn't feel useful to the team, but at least I didn't feel so awkward. The players seemed quiet and even the captain seemed quiet today, but the physiotherapist didn't mention anything to worry about prior to the game.

Players	Staff
<p>First half:</p> <ul style="list-style-type: none"> <li>- Players looked quiet the start, not much talking to each other</li> <li>- Good support from the sideline players</li> <li>- [player] seemed confused about her role</li> <li>- After the first goal has gone in, players didn't get together to reset</li> <li>- After penalty the mood lifted</li> </ul>	<p>First half:</p> <ul style="list-style-type: none"> <li>- Lots of instructions and encouragement from [coach] from the start he is stood up</li> <li>- 10 mins into the game [manager] stands up and looks worried</li> <li>- [manager] and [coach] encouraging after 1<sup>st</sup> goal but still look worried</li> <li>- Team talk by [coach]: shoulders up, very motivational but also instructional</li> <li>- 30 mins [manager] stands up again, arms crossed</li> <li>- After penalty, mood lift</li> </ul>
<p>2<sup>nd</sup> half:</p> <ul style="list-style-type: none"> <li>- [player] and [player] said no to a staff instruction</li> <li>- More communication, however not sure that it is enough</li> </ul>	<p>2<sup>nd</sup> half:</p> <ul style="list-style-type: none"> <li>- Quieter start from [coach]</li> <li>- [manager] stands up again looks worried</li> <li>- After 2<sup>nd</sup> goal, staff looks more energized as opposed to worried</li> <li>- [coach] sits down for the first time but then gets up again</li> </ul>

Overall, [manager] kept standing up and sitting back down, looked worried apart from straight after the 2<sup>nd</sup> goal. [coach] looked less worried, lots and lots of instructions – trust? It was interesting to observe when some players refused the instructions – why? Very tough game, players didn't seem to have clicked and some were not sure of their roles either.



## Appendix 5: Example E-mail Exchanges During the Intervention

**From:** Adrienn Szabadics  
**Date:** Monday, 24 October 2022 14:35  
**To:** Manager, Assistant manager  
**Subject:** Reflections (Heads up, it is a long e-mail)

Hi both,

I understand that yesterday was a tough game. I might be biased but the outcome of the game should have been different. I noticed that you always highlight that it's a journey which I think is fantastic.

A few reflections from me:

- with the vice-captain missing from the pitch, might be worth either creating a bigger leadership group that can lead on pitch or incorporating leadership into drills during training so that everyone can practice it. As an example, they have 3 non-negotiables, you could have 3 individuals that "champion" them - shares the responsibility and increases leadership skills on and off the pitch. Equally leader of the day in drills might be helpful.
- might be useful to work on specific reset strategies within training, e.g. appoint a captain for each team and if a goal is being scored at training get the other teams captain to bring the team in to reset - just an idea. Same with any other challenges that could happen during a match what is our reset strategy (e.g. low 5s) and have we practiced it during training?
- I noticed that after 27:22 when you had that opportunity to reset the team seemed to play more organised

To answer your question from Friday, it might be useful to have a mid(ish)-season reset with goals and so you could incorporate individual goals that could make individuals more determined. If being in the starting 11 is not enough of a driver at the moment, then there are so many other challenges they could set themselves.

- Where do you want to be by Christmas?/What do you want to achieve by Christmas? (can be a couple of things) - staff too
- Where do you want the team to be by Christmas? What do you want the team to accomplish by Christmas - staff too

It is then helpful if it is discussed a group with staff to be vulnerable in front of each other. Can be extended by asking them how individuals goals align with teams etc. or extend it by getting them to think about the how.

Equally, asking them about someone who inspires them is an indirect way to get them thinking about their whys. Why did they get into football? What did you learn from this person who inspires you?

On a separate note, I really liked the reflection task you did last Tuesday which reminded me that when reflecting on challenges these 3 things are key:

The problem/task: Do we have a shared understanding of the problem and of what needs to be done here? The team: Do we have a clear understanding of our own roles in this, of each other's strengths and experience relevant to the task?

The strategy: Do we have a clear, shared understanding of the most effective way to approach this? The tools, techniques, and resources we should be deploying?

Sorry for the really long email! These are just ideas ...

See you tomorrow,  
Adrienn

**From:** Adrienn Szabadics  
**Date:** Monday, 5 December 2022 14:19  
**To:** Manager, Assistant manager  
**Subject:** Feedback

Hi both,

Hope you are managing to recharge a bit ready for a new week. Thought I would share some feedback again from a psych perspective from the game for you to decide to take on or not.

- The first 9 minutes were pretty quiet, on both ends (players and staff), then I made a note that [assistant manager] you stood up and you both started saying instructions and encouragement (not sure if you were aware of this). With this I just want to highlight that sideline behaviour can transfer on to the players, same with emotions via 'emotional contagion'. I.e., panic, belief, frustration, excitement, nervousness, energy, etc. Can be a really advantageous tool or a very detrimental one. (as a comparison, I looked back at my notes and when we played [opposition] on the 16th of October, all 3 of you so including [coach] were stood up, shouting instructions, so I would ask you to consider what does that signal to the players, what is the emotion that you are transferring on to the pitch).
- When [player] was getting more and more visibly frustrated you guys had done a brilliant job reinforcing patience and lots of 'well dones', loud and clear. At one point you could definitely tell that advice was taken on board by her. Also noting here that she is getting louder in her communication, though there were some unhelpful comments coming from her yesterday.
- [manager] you said 'stretch it' many many times, which stuck with me assuming that it stuck with others too. I made a note on this because it was simple, short, loud and clear, reinforced multiple times. Simplifies it for the players as they don't have a lot of mental capacity to digest much information in the heat of the game. Just as a brainstorm, could come up with more of these relating to roles and responsibilities to be really effective with communication under pressure.

Started off as a short email but ended up expanding on the points!

See you tomorrow,  
Adrienn

## Appendix 6: Example Text Messages that Detail Co-production of the Intervention

1 September 2022

**Captain:** Hi Adrienn, just checking in before tomorrow, did you want to lead a short player meeting with us off the back of Sunday?

**Adrienn:** Hi [captain], yes happy to! The things that we spoke about like how to demonstrate e.g. togetherness even when things are tough etc.?

**Captain:** Yes, sounds like a good idea, do you want me to run it past [manager] first?

...

**Captain:** 10 mins before lunch 👍 You okay with how you are going to lead / approach it with the group?

**Adrienn:** Sounds good, yes, I'll approach from reaching your goal through your non negotiables that you've set out as a group and then focus on how we actually demonstrate it even in difficult games. So, keep it very conversational and it's up to the group how fast we go through this. If there is lots of ideas then great more discussion, more people might speak up, but we might then only have time for togetherness in the 10 mins.

Actually, what are your thoughts on asking them to spend a couple minutes discussing it in a small groups - quieter people might get more of a chance to share their views then. Then bring the group back in to then share it all.

**Captain:** Yeah sounds good... like you say, encourages the quieter voices of the group. Then the following week we can touch on the other two non-negotiables...

I think small + steady is better than too much info

Is it okay if it's delivered either outside or in our changing room, as that's what we've been doing previous. Away from staff.

**Adrienn:** Sounds like we have a plan then. Of course! Happy to follow you to where you guys feel the most comfortable.

**Captain:** Thanks.

## Appendix 7: Examples of Field Note Entries and Reflective Diaries

23/08/22

Tuesday

### Field note entry:

- The assistant manager asked for advice around body language
- The manager helped me distribute the first round of questionnaires
- Another player asked for 1-2-1 sessions around handling nerves and anxiety

### Reflective diary:

I was still uncomfortable pretty much 8-10am this morning until the team meeting. The team meeting lasted about 40 minutes where the coaches went through the match from the weekend and showed clips of performances. At first there wasn't much response from the players, then towards the end there were signs of collective understanding by the types of questions asked and the level of engagement from the players. I then walked for a bit on the pitch with the physiotherapist and a couple players as part of their physio rehab. Afterwards I walked to the top pitch to see if the coaches need help setting up for the training session when the assistant manager approached me and said that some players said that the coaches body language wasn't the greatest over the weekend. We had a brief conversation around it. I also mentioned to him that from the interviews last year, players in general said that they mirror the coaching staff during games, so even if they go quiet after giving lots of instructions during a match that's a sign of change etc. so it may be about consistency. He was then approached by another coach, so I had decided to walk away. The S&C spoke to me quite a bit and said that the players felt really nervous, and that we need to come up with a quick activity or something to help them feel less anxious before matches. I said sure we can think about this. Over lunch I had the meeting with the captain and the vice-captain. They said Friday went well (their first player meeting) and spoke about a shared vision – promotion. They will send out a message to the players to ask to send back 3 non-negotiables (behaviours that will hold them accountable), they will then collate a list and get the 3 most mentioned ones. The vice-captain seemed to have wanted to rush through it, whereas the captain looked to be more engaging with the task. I can see she wants to do this properly. After this meeting with the captain and vice-captain over lunch, I asked the manager if there was time to run through my bit, she said yes let's go up to the training ground. She wanted to run through it with me first, but I said I don't have slides or anything. I said to her what I was going to do and given her a sample of the forms and questionnaires. She said we won't be able to do this now, players will have to take it home and bring it back because we don't have enough pens either. I said I've come prepared, brought enough pens, timed the questionnaires, and it only takes about 5 mins. She said judgementally so will you speak for 5 mins and then this? I said I can speak for 3 if you would like, she said perfect and smiled. She then got the group together, casually everyone sitting on beanbags etc. I introduced the questionnaires and explained a little bit more about the research project, the manager helped handing out the pens and the questionnaires and then that was it. I felt supervised the whole time with eyes on the clock making sure I don't overrun or say anything that wasn't 'rehearsed'. My intro could have gone better, I felt nervous but practicing it the day before helped a lot. I ended up hanging around the afternoon for a bit longer, chatting to people and it was a good end to the day. Another player has come up to me to see if I could help her individually to handle nerves and anxiety so we agreed to chat about it next Tuesday at 9am when they go for breakfast, I will just head down with her.

14/10/22

Friday

Field notes:

- Caught up with the captain and received feedback on the group sessions
- [name] coach was not in today
- Staff meeting after lunch where I also shared feedback
- Had the best day so far!
- Critical friend discussion with my supervisor the day after (on Saturday) – in my other notebook

Reflective account:

There was no traffic on the way in this morning, so I was able to get here at 7.30am, same time as the physiotherapist. I had the chance to interact with the staff and listen to the update on the players from the physiotherapist. I confidently hung around the training ground, catching up with players as they arrived. I engaged with the staff a lot more with just everyday chat which was really nice.

In the staff room, the manager handed out pictures to the members of staff with little personalised messages on the back of them. Obviously, she didn't give me one, but I thought that this was very kind of her and probably demonstrates how caring she is. It is also interesting that she is doing it now after people had covid and were off ill - stressor. It also demonstrates her leadership, links in with social capital, group structure and social identity. After the team meeting, which was about 30 mins long again, the assistant manager asked me "how was that"? Seeking for my feedback. I responded by saying how informational it was and highlighted certain areas I perceived to have been good and helpful for the players. The players gave the general manager a Thank you card for everything that he has done for the team since he started which I thought was quite thoughtful. As the training session started, I stayed inside to start with, catching up with [name] who is injured at the moment, and turns out that her and [name] are together. I then went outside to observe the rest of the training session and helped the coaches with the balls. After the training session I caught up with the captain walking down to lunch, and she gave me some good feedback on my delivery to the team so far. She said that the discussions have been good, and that I've pitched them right and they feel that they are ready for some more. She said that belief is one of the areas that she is personally interested in exploring further as a team, but let's continue with the non-negotiables so next up is mentality.

During lunch I sat with the players and had good discussions, getting to know them more in an informal setting. One of the players got engaged as well so really enjoyed speaking to her about it. After lunch I walked back up to the training ground and the staff have already started the staff team meeting. I was very surprised, a heads up would have been nice but I didn't worry too much about it. I thought if there was something important that I may have missed, they would mention it to me. We went around the room and the manager asked everyone if and what they would like to update us on. She even asked me!!!! I said to her the feedback I received from the captain. Interestingly, both her and the assistant manager now shared some ideas for future team resilience sport psychology sessions with the team. The manager even said well done to me after the meeting!!! It seemed like there was feedback on the team resilience intervention coming from staff and players today even though I was not directly asking for it. Though I have sent out an email on Monday to ask for the coaches feedback on the intervention but that's probably forgotten now given how quick everything changes around here. The assistant manager then said that they would rather be proactive about sport psychology than reactive, so basically let's prepare for winter months when things could get tough.

03/02/2023

Friday

### Field notes

- Conversation with a couple of players [names]
- Asking the coaches to reinforce communication during training session
- Check in with [name]
- MDT meeting
- Question for the players: What kind of a teammate do you want to be?

### Reflective Diary

I chatted to [name] and [name] in the morning. Said hi to the new physiotherapist who is here only for a week until [name] starts. The manager asked me if I will be delivering anything to the players today as part of the team resilience intervention. I said no because I wanted to ask the coaches to reinforce communication through their coaching in the training sessions. She asked whether I had also noticed that communication was lacking among the players? I responded by saying yes, and that I just wanted to ask all the coaches to reinforce high fives etc. through their coaching today as opposed to myself delivering a session on communication and that I felt this would be more effective to involve the coaches (intervention delivered via a social agent). She said good thinking, and that she also wanted some help with getting players to find the balance in supporting each other even when they are not in the starting 11. According to the manager, the players raised that there is a bit of a conflict or start of a conflict between the starting 11 and the bench. So, the manager asked me to have a think how I could help with it and to try to understand what teammates they want to be to each other and support each other through challenges. I said well that question that you just asked, “What kind of a teammate do you want to be?” might just be it. So the outcome of this impromptu brainstorm on the black sofa in the staff room was that the players were asked this question (“What kind of a teammate do you want to be”?) during their normal team meeting this morning. Anonymously they will write it down on a piece of paper, bring it back with them tomorrow and put it in the little piggy. We will then collate it, and somehow put it on a visual board or a word cloud. I must admit it felt really good to brainstorm together with the manager and continue co-creating the team resilience intervention, The players and coaches started the training session with some music which lifted the mood among the teammates and had a direct influence on the training session. I observed the training session and helped the coaches by collecting the balls when it was needed. Caught up with [name] on the way down to lunch and she opened up about how much she is struggling, she currently has some unhealthy coping behaviours. However, our chat ended as soon as stepped into the canteen. After lunch I ended up asking her if we could chat for a bit and asked whether she is bothered by comments that she receives from the coaching staff and the fact that it is perceived that she is often the centre of the joke. She seemed okay with it but thanked my support and that I have asked her. I reinforced that I am here to support her. During the MDT we discussed [player] a little bit and it all seems ok for now. [name] has been able to have some good conversation with her, so I am glad, and I feel reassured that she has someone that she feels comfortable talking to.