



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

Good practice delivery in Sport Science and Medicine support

Citation for published version:

Alfano, H & Collins, D 2020, 'Good practice delivery in Sport Science and Medicine support: Perceptions of experienced sport leaders and practitioners', *Managing Sport and Leisure*, pp. 1-39.
<https://doi.org/10.1080/23750472.2020.1727768>

Digital Object Identifier (DOI):

[10.1080/23750472.2020.1727768](https://doi.org/10.1080/23750472.2020.1727768)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

Managing Sport and Leisure

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



E-published in Managing Sport and Leisure March 2020

doi.org/10.1080/23750472.2020.1727768

**Good practice delivery in Sport Science and Medicine support:
Perceptions of experienced sport leaders and practitioners**

Helen Alfano and Dave Collins

Purpose/Rationale: Sport Science and Medicine practitioner (SSMP) delivery is clearly of interest, with numerous anecdotal insights to good practice and research focussing on the evaluation of competence in delivery. However, little research has explicitly examined perceptions of the skills sets, process and mechanisms that lead to good practice. Accordingly, our aim was to develop a deeper understanding of the mechanisms of Sport Science and Medicine delivery, examining perceptions in high performance environments and whether constructs apparent in other performance domains could be relevant in the Sport Science and Medicine delivery context.

Design/Methodology/Approach: Semi-structured interviews were undertaken with six experienced Sport Science and Medicine practitioners and six primary employers of the support itself, namely performance directors. Data were transcribed and analysed to generate higher order themes.

Findings: There were four emergent themes of environmental appreciation, role appreciation, understanding people and the importance of team for good practice delivery. Moreover, there were sources of knowledge apparent from other performance domains that offer constructs or concepts with implications for good practice in Sport Science and Medicine.

Practical Implications: Findings promote a greater focus on non-technical skills, selection of appropriate delivery models, and an increased emphasis on evidence-based practice. Building from the results, we make some recommendations to support both the practitioner in striving for impactful delivery and those who lead and manage their delivery and development in the roles.

Research Contribution: This academic evidence-based offering supports and extends current anecdotal insights on offer in his important function.

Keywords: applied, impact, effectiveness, mechanisms, performance domain

Introduction

The challenge of demonstrating impact is a constant in applied sport science and medicine (SSM) delivery settings, especially in the centrally funded approaches which characterise current national systems. Consequently, how role performance is evaluated is a crucial consideration for practitioners *and* those leading or managing delivery. Importantly, however, impactful support in sport science and medicine practitioner (SSMP) roles may be defined by a plethora of different measures and perceptions of this may vary greatly in any role. Such measures could include a combination of aspects, depending on the perspective (personal versus organisational), objectives set (general versus specific) and level within the organisation (see for example, Collins, Button & Richards, 2011). As examples, the ability to integrate into the system (cf. Collins, Trower & Cruickshank, 2012), gain acceptance and be retained in a role (e.g., Collins & Moody, 2016), delivery of a discipline-specific relevant objective (e.g. reducing injuries) (Willmott & Collins, 2015) or, perhaps ultimately, on the output/performance of the client, i.e. the colour of medal or final placing in a table (cf. Collins, Jordet & Cruickshank, 2019).

In our experience with many of these facets outside the SSMP's direct control, such as how the client defines success and the performance ultimately delivered by the athlete/sport, there is a tendency towards making good practice (GP) the main goal: in short, an emphasis on process over outcome. The implicit assumption being that *quality* of service delivery is key and that, if sufficiently high, this will directly impact on the level of achievement. However, whilst factors of GP and success may be neither directly associated nor mutually exclusive, for the purpose of this paper we accept that delivery of GP is inherently linked to optimising delivery and, hopefully, success.

SSMP delivery is clearly of interest, with numerous books offering interesting although anecdotal insights to GP (e.g. Ingham, 2016; Kyndt & Rowell, 2012). Some empirical research does exist, focussing on evaluation of competence in SSMPs, mostly from a sport psychology perspective, and lessons may be learned and (perhaps) extended from this (Anderson, Miles, Mahoney & Robinson, 2002; Ballie, Davis & Ogilvie, 2015). Case study examples of "good practice" delivery also exist (cf. Journal of Applied Case Studies in Sport and Exercise Science), whilst Associations (such as the British Association of Sport and Exercise Scientists - BASES and British Association of Sport & Exercise Medicine - BASEM) who lead and/or accredit practicing SSMPs suggest that delivery to a code of conduct can result in GP. Within these varying perspectives of what demonstrates or defines GP, however, it is surprising that little research has explicitly examined perceptions of the skills sets, process and mechanisms that lead to GP from either those delivering support or leading/employing it.

In contrast, literature in business (e.g. Biron, Farndale, & Paauwe, 2011) and performance in other domains (e.g. Fiore, Ross, & Jentsch, 2012 and Hays, 2007) does attempt to define and contextualise ways of working for increased efficacy, effectiveness and impact but the extension of much of this to SSSM delivery has not yet been explored.

This is despite literature which highlights the link between sport and business for example, especially in relation to effective high-performance teams (Jones, 2002). Within performance medicine the General Medical Council capture good medical practice under the following headline areas: knowledge, skills and performance, safety and quality, communication partnership and teamwork, and maintaining trust. Other core elements noted include effective multi or interdisciplinary working (supported by medical literature e.g. Bridges et al., 2011), role understanding, managing decisions and skills in, again a concept well supported in in medical literature (Garmel, 2004; Gawande, 2007; Peabody 2015). Similarly, fifteen elements required for proficient practice in Psychology are captured by The Health Care Professionals Council. Many elements reflect those of code of conduct approaches capturing both technical and administration (e.g. legal, confidentiality), but they also offer some ‘less technical’ elements’ such as; exercising professional judgement, communicating and working with others effectively, reflecting on and reviewing delivery and having a wider appreciation of structures, roles and functions within a team.

Some of these ideas are echoed within the sport management literature, albeit that this has been predominantly focused in the psychology support domain. Ballie et al. (2015) discussed the complexities of working with athletes for the sport psychologist specifically and suggested that, whilst relevant knowledge, expertise and tools are essential for successful practice, there are many more facets needed in order to practice with efficacy. The ability to select correct strategies and offer them with clarity, appropriate feedback and effective delivery are also crucial (cf. Martindale & Collins, 2007). Less ‘technically’, the personality of SSMPs and their ability to develop working alliances has consistently been identified as another major factor in delivery effectiveness (Anderson, Knowles, & Gilbourne, 2004). The ability to communicate, be flexible,

accessible and trustworthy, as well as to deliver in collaboration with other support team members, were also key features noted (Ballie et al., 2015). This idea of excellent underpinning knowledge supported by a plethora of non-technical skills is identified in literature discussing SSMP GP, albeit on anecdotal rather than formal evidence (Kyndt & Rowell, 2012). With this indication that GP is strongly related to interpersonal skills, we felt that a rich, in depth picture was needed on the features of GP and how it is delivered. This led to a qualitative research design in order to uncover this and offer a structured, academic perspective. Specifically, qualitative research was chosen given its suitability for trying to make sense of socially interactive phenomena and the associated meanings that people bring to them (Denzin & Lincoln, 2000).

Therefore, reflecting these points and to develop a deeper understanding of the mechanisms of SSM delivery, our aim was to examine perceptions of GP in high performance environments. Specifically, we were interested in insights from experienced support providers (SSMPs), and the primary employers of the support itself, namely performance directors (PDs). An additional but subsequent aim was to examine whether constructs on offer the literature in other performance domains could be relevant in the SSM delivery domain, allowing us to build on anecdotal evidence to date.

Methods

Participants

Six experienced SSMPs (two Psychologists, two Strength & Conditioning Coaches, one Biomechanist and one Physiotherapist) across Olympic/Paralympic (N = 4) and Professional Sports (football and rugby at Premiership Level) and six Performance Directors (PD) (Two from the Professional Premiership and 4 from Olympic/Paralympic sports) were purposefully recruited for the study. Interviewees consisted of 4 females and 8 males. Eleven participants were currently employed in roles appropriate to the study; in

the other, data were collected related to a recently held role. To be included in the study, the PD needed to be currently/have recently been in post with no minimum time requirement. SSMPs were included if they had at least 8 years' delivery experience in high performance sport. To protect confidentiality, we have deliberately not provided further detail.

Procedure

Ethical approval was obtained from the institutional ethics committee and informed consent gained prior to interview. To aid consistency, a semi-structured guide with open-ended questions and follow-up probes was developed (see Appendix 1). Prior to use, this full interview was piloted with participants who met the inclusion criteria. Although the main questions were not changed by this pilot work, follow-up probes were refined to ensure that the main interviews would effectively meet the study aims and were relevant to the different interviewees. All interviews were conducted at a convenient location or face to face online, by the first author. Interviews lasted between 40 and 80 minutes (M = 52) and were audio recorded.

Design, Analysis and Trustworthiness of the Data

Interviews were transcribed verbatim, then subjected to an inductive analysis, using NVIVO 9; taking raw data units and building thematic hierarchies by creating tags, categories, and organizing categories (Côté, Salmela, Baria & Russell, 1993). To be clear, these data consisted of quotes related to each participant's perceptions of GP and, as such, data on other aspects not related to this were not included in the analysis. Following the procedure in Côté et al. (1993) data were read and re-read several times, then raw data units were transformed by the lead author into thematic hierarchies by creating tags (e.g., "People Skills"; "Roles"), grouping similar tags into subthemes, and then organizing these sub-themes into a distinct framework of higher order themes.

Following this, the second author reviewed two scripts (one from each category of participant) against the themes identified. He also acted as a critical friend throughout the whole process, which included reviewing, challenging, and suggesting refinements to the tags and themes developed by the lead author during the analysis itself (cf. Faulkner & Sparkes, 1999).

Following completion of data analysis, to enhance the trustworthiness of the data and reflecting best practice recommendations (Smith & McGannon, 2017), all participants were contacted to garner their reflections on the results of data collection, having been sent a copy of the tabularised summary (see Table 1) in advance. Of the twelve, six responded (three PDs and three SSMPs) and all perceived the results to be highly representative of their perceptions of GP, acknowledging and endorsing the ideas presented across the participant group. Importantly, none expressed any disagreement with the content or nature of the coding, nor reported any additional perceptions out with the emergent themes.

The key reflections included an acknowledgement of the importance of working in collaboration with others and the importance of people skills to facilitate this. For example, one SSMP commented, *“Essentially your technical knowledge is a given, how good your people skills are will dictate your success in the high performance system.”* The great importance of context was also noted by all, and one SSMP suggested that, whilst the ability to flex style was critical, SSMP’s also need the courage of their convictions and ability to challenge in the right way at the right time. Furthermore, many supported the concept of role clarity; in particular, understanding the supportive role that an SSMP plays and the important link with the PD and head coaches, with one PD stating that whilst the SSMP brings *“the expertise which is used to help inform the wider decision by coach/PD ”*

Results and Discussion

The primary aim of the study was to examine perceptions of GP in high performance environments from the perspective of both providers and consumers. The secondary aim was to understand whether constructs from other performance domains could be extended to, or offer relevance for, SSMPs. Table 1 demonstrates how higher order themes emerged, but with the rich picture generated, we have also chosen to present an overview of our findings, specifically one the participants' perceptions and characteristics, in table format (Table 2.). Rows represent the features of GP identified by participants in response to the specific questions asked, whilst columns identify emergent themes across participants of understanding environment, role, self and others and team. A final row, shaded to aid clarity, is included to highlight the relevant areas for attention.

****Table 1 and 2 near here****

From our interviews, it would seem technical expertise is not perceived as the limiting factor in successful delivery of GP by the SSMP. Rather, the *application* of that expertise appears critical, a concept supported by previous anecdotal literature (Ingham, 2016; Kyndt & Rowell, 2012). Applying knowledge and delivering GP is linked to an ability to understand context, flex and align to that context and, ultimately, to meet the client's requirements, both as an individual and in a team. Results suggest that SSMPs need to appreciate and apply contextual support within the environment, the role, the people and the team. With this in mind we structured our results through these four emergent themes.

Environmental Appreciation

Extending information in Table 1 and 2, understanding the context of the environment came across as a pertinent theme linked to GP, as described in the quote below:

“They (SSMPs) need to understand their subjects, the world they operate in and how that subject can be best used in that world. Then they take time to understand the people that they interact with and the emotional environment in which they operate” (PD3)

The ability to assess, adapt and align to the environment seemed a critical area for development for SSMPs, with statements such as ‘they weren’t on board’, ‘on the bus’ or ‘didn’t fit’ often identified as the main concern where delivery was deemed unsuccessful. Expanding on this, the ability to adapt seemed defined by the SSMP’s ability to make appropriate decisions on delivery models and method for successful input; alignment only seemed possible if an accurate assessment of the environment had been made and the ability to adapt existed, raising the question as to how this is best developed. This understanding and assessment of the system extends literature in performing artists (Hays, 2007). This discussion also offered support to the previously identified concept of Professional Judgement and Decision Making (PJDM) and its link to performance delivery (Martindale & Collins, 2005; 2013). Mechanisms which support development of environmental appreciation were mainly linked to exposure, immersion and time on task.

In addition, organisation and management were also considered influential. The provision of time, support, clarity on aspects such as vision and structure, and facilitating links to the correct knowledge increased the opportunity to develop understanding, alignment and integration. The importance of creating a positive environment supportive of performance was also seen as critical for GP: often characterised as a ‘safe’ environment to be vulnerable, give and receive feedback, challenge and openly review. The concept of optimising performance environments is not a new concept and this links to much previous research (e.g. Argote & Miron-Spektor, 2011; Biron, Farndale, & Paauwe, 2011; Jones, Gittins, & Hardy, 2009; Wagstaff, Fletcher, & Hanton, 2012).

Role Appreciation

“If you're not clear where you are, what you should be delivering, what the outcome is and how you will be measured it is absolutely your responsibility to seek that. Do I really know why I'm here? Do I really know what I contribute too? Do I really know what the full intent and objective of the team is and what my piece in that jigsaw is? If you have done that and sought that, this is a good practitioner.” (PD3)

Seeking clarity, understanding and delivering to a defined role were pertinent themes linked to GP. Those SSMP's who had clarity of role, knowledge of what to deliver and an ability to be held accountable to that, seemed to deliver GP. In addition, role appreciation needed to be underpinned with technical expertise, an understanding of boundaries and selection of an appropriate delivery model. If lacking, there were negative consequences for role performance. Accordingly, an understanding of Role Clarity (RC) as a construct, often linked to role performance, may support the SSMP in delivery (see Bray et al., 2005; Eys et al., 2003). It was seen as the SSMP's responsibility to define their role however, whilst the role of the organisation in setting higher-order vision, strategy and hierarchy, plus their pivotal role in offering support to the SSMP, were also stressed. Parallel to this was the critical role of the manager in defining the role within the wider context (environment, role, people or team), and supporting with aligned objectives and regular review.

The concept of flexibility in delivery model, noted in Table 1, suggests an expectation to deliver above and beyond a role at times; ‘mucking in’ or completing tasks not in the job description (i.e. moving bags); concepts SSMPs should appreciate. The need for collaboration with client and team was evident throughout discussions around role. This collaboration seemed important to define the nature and relevance of input, the

role itself and to manage expectations of self and other stakeholders (clients and team members). Once RC had been secured, the importance of sharing that wider was highlighted:

“It’s about being very clear about what it is you’re doing in the first place. Everybody knowing exactly what you’re working on and what outcome you expect and what timeframe you are looking at for achieving it.” (P1)

Understanding People (Self, Others and Relationships)

“You can have all the technical knowledge in the world but if you can’t get on with somebody you’ll never get in and be a part of it in order to give that technical knowledge.” (P1)

With application of knowledge being critical for GP, SSMPs’ ability to work with people, as highlighted in the quote, emerged regularly. ‘Buy in’ (the desire to accept input and work with an SSMP) and influence (an ability to cause change in client behaviour) were identified as important for GP, supporting personal delivery, interactions with others and professional relationships as crucial. Developing the skills to deliver positive interaction was important for GP, supporting findings in other front facing service delivery roles, such as performance medicine (Garmel, 2004; Gawande, 2008; Peabody, 2015).

Critical social skills linked to awareness of self and others, communication and engagement skills were identified for GP and are detailed in more depth in Table 2. These supported SSMPs’ ability to self-manage with a considered approach to interactions and selection of an appropriate style, again linking to PJDM. A strong appreciation of people (self and others) and self-reflection underpinned this, as described by one SSMP:

“Self-awareness is a big thing. If people come in with that already, then that’s great. You know your normal operational style but also have an awareness of

knowing ok, that's not going to work in that instance and I need to flex to fit; it may take effort but you can do that." (P6)

The coach was commonly identified as the critical person to influence and build a relationship with, especially by those working in Olympic/Paralympic settings. The sensitive and potentially fragile nature of relationships was recognised by many.

"Building relationships and trust is crucial to be able to influence. This is particularly for those coaches who are more difficult to work with, you get a wider variety (of coaches), and all can be difficult. But being able to flex your style, influence and get them engaged is the key. You can have great interactions but if you mess it up you can also lose people for a period of time." (P6)

Understanding the 'how' of building effective professional relationships with clients and team members was commonly discussed. The development of trust was often defined as the critical process in support of this, and links with actions such as credibility and reliability (i.e. delivering what you promise, to a high level and in a consistent manner) were regularly reported. Other targeted actions for relationship building were focussed specifically on developing 'empathetic intelligence' through tactics such as taking time with identified people and immersing themselves in the environment of others, as exemplified by one SSMP:

"I always make sure I'm at a training session, at least once a week. I go to the coaches meeting once a week so that not only am I aware of what coaches are trying to do but I can feed into that if appropriate and they can ask me anything about any of the work I'm doing." (P1)

Those external to such relationships, most often the leaders, seemed able to offer support to development of relationships, acting as facilitator and providing opportunities to: develop self-awareness, share awareness of others' styles, identify influencers and

encourage reflective practice. Understanding how best those external to the relationship may support could be a critical factor in the delivery of GP.

Importance of Team

The concept of multi and interdisciplinary team working for positive impact on GP was acknowledged by all participants, despite the differing nature of teams they were exposed to. Indeed, those working in silos were thought to have limited impact, appreciation of performance problems and an association with negative aspects, such as client confusion and lack of clarity. Consequently, the desire, ability and skills to function effectively as part of a team are critical for the SSMP, supporting findings and recommendations from similar domains, including performance medicine and health care work (Bridges et al., 2011 & Bronstein, 2003).

The negative impact of non-functioning teams on personal and team GP was also evident, suggesting the wider implication of understanding optimal team performance. Indeed, ability to deliver GP within a team was linked to all other themes captured. Understanding the characteristics of a well-functioning team and the support structures which can be offered should support both team and personal GP. Participants suggested several characteristics and requirements for team functioning including a functional leader, clarity of purpose, a team philosophy of sharing and a shared understanding of each other, roles and objectives. These also suggest RC is vital for team GP, as suggested by one SSMP:

“I think for everybody in the group to have a good understanding of everyone else’s roles and ideally an understanding of their philosophy of that role, so if you're a medic and you're a physio you have two slightly different world views and you need to be able to appreciate the others point of view. There needs to be a shared understanding of where the other person comes from.” (P4)

Commonly noted characteristics were linked to personal and team support mechanisms, again suggesting a critical role for organisation and management. If these can provide the right leadership, environment and opportunity then GP is more likely. The provision of time spent as a team, both social and work-related, seemed to support relationship building, whilst the opportunity to practice and plan for role delivery was specifically mentioned. The impact of the right environment with constructive challenge, feedback and regular critical review were also noted. Constructs do exist across organisational management literature around team functioning and performance which may support both the SSMP and organisation/manager in increasing the likelihood of GP. (Example of constructs on offer are those of Shared Mental Models (SMMs) and the use of appropriate Leadership Styles)

Other aspects of note

When discussing processes linked to GP there was a notable difference between inputs from PDs and SSMPs, Unsurprisingly, SSMPs seemed to have greater awareness and ability to identify and articulate the detail of 'how' GP is delivered. In contrast, the ability to define success for the SSMP was a challenge noted by PDs, suggesting that measures of success may not be clear. Indeed, a variety of success measures were captured, ranging from objective (e.g., process-focussed delivery) to subjective (opinion, acknowledgement and acceptance in role). Interestingly, no one suggested GP was measured through the ultimate performance of the client.

As noted in Table 2, some skills were acknowledged more often in team GP. For example, it was not the ability to lead personal input but to take a leadership role within the team. Likewise, the importance of decision making as a team, aligning support behind a decision and ensuring consistent external messaging to the client was acknowledged. One PD suggested:

“If there is a decision to be made, involve, consult and bring people in with it. Collaboration is more important for me. It’s about how you collaborate with those around you to get the decision that you need.” (PD4)

General Discussion

As discussed through the exploration of results, the data suggest a number of factors related to GP in SSM, many (but importantly not all) of which have previously been identified in anecdotal literature (Ingham, 2016; Kyndt & Rowell, 2012). Notably, the ability to *apply* technical expertise was a defining factor and the application of relevant support within the environment, the role, the people and the team, led to GP and our four emergent themes, which were extensively interlinked.

Importantly, however, in relation to our secondary aim there are also sources of knowledge from sport, organisational management and other performance domains (including performance medicine and business) which support the findings, offering theoretically grounded constructs, such as RC, PJDM, leadership styles and SMMs that have implications for the SSMP, those leading them and, we would suggest, their training and ongoing professional development. These constructs are also not new but have, as yet, received little consideration in the sport literature. They offer information and insight beyond the anecdotal sport literature to date and, as such, we suggest that such evidence based views can be extended to supplement/replace these. We offer an overview of the relevant existing theories, constructs and supporting literature from both sport and other domains in Table 3.

****Table 3 near here****

Limitations, Recommendations and Next Steps

Of course, these are preliminary data which need to be supported by further research. Also, our insights here are retrospective and we are undertaking a more in-depth,

longitudinal real-time investigation of the challenges, processes undertaken and the support on offer for SSMPs to extend our understanding of GP. Finally, we must acknowledge the need for caution in generalising uncritically from what is a limited sample. For example, notable omissions in the range of professions interviewed. As with many such studies, the need for further data is clear.

These limitations notwithstanding, however, our data do offer a useful and empirical supplement to the largely anecdotal views in the literature to date. The investigation also represents a first step to exploring the PJDM of practitioners, situated against guidance from other, more advanced study. Understanding how an individual solves problems and make decisions effectively can be influential, for example, with effectiveness of delivery widely correlated to the efficacy of PJDM in other multifaceted performance environments (e.g., Evetts, 2002; Husted & Husted, 1995; Simon et al., 1987). Developing a greater understanding of the constructs on offer from other domains, and the implications of them for the practicing SSMP, could extend our understanding of the why, when and how of delivery, rather than just the what, extending a concept identified by Collins et al. (2015).

As ‘interim’ recommendations for practice, we suggest that SSMPs give even greater focus to the non-technical skills of delivery and the selection of appropriate delivery models relevant to the environment, the role, the people and the team. Developing an understanding of these factors through environmental immersion seems critical and building skills, such as self and others awareness, can support in navigating working with others and within a team. Knowledge of the constructs on offer may also support the SSMP. There is also a critical support role for those leading SSM provision, the organisation, direct line manager and client. Tools to support GP delivery might include; giving a new SSMP the time to embed, in depth inductions, providing a

performance environment, leadership and supported reflection. Acknowledging and extending the understanding of the impact of the organisation and structures on GP in-situ could also be a useful area for future investigation.

In the meantime, we hope that this academic offering may support a move away from reliance on anecdotal insights, sparking an increased emphasis on evidence based practice.

Acknowledgements

We would like to acknowledge the participants for giving their time to this study.

References

Anderson, A., Miles, A., Mahoney, C., & Robinson, P. (2002). Evaluating the Effectiveness of Applied Sport Psychology Practice: Making the Case for a Case Study Approach. *The Sport Psychologist, 16*, 432-453.

Anderson, A.G, Knowles, Z, & Gilbourne, D. (2004). Reflective Practice for Sport Psychologists: Concepts, Models, Practical Implications, and Thoughts on Dissemination. *The Sport Psychologist, 18*(2), 188-203.

Argote, L., & Miron-Spektor, E. (2011). Organisational Learning: From Experience to Knowledge. *Organization Science, 22*(5), 1123-1137.

Ballie, P., Davis, H., & Ogilvie, B. (2015). Working with elite athletes. In J. Van Raalte & B. Brewer (Eds.), *Exploring Sport and Exercise Psychology* (pp. 401-425). Philadelphia, PA: Elsevier.

Biron, M., Frandale, E. & Paauwe, J. (2011). Performance management effectiveness: lessons from world-leading firms. *The International Journal of Human Resource Management, 22*, 1294-1311.

Bray, S.R., Beauchamp, M.R., Eys, M.A., & Carron, A.V. (2005). Does the Need for Role Clarity Moderate the Relationship between Role Ambiguity and Athlete Satisfaction? *Journal of Applied Sport Psychology, 17*, 306–318.

Bridges, D.R., Davidson, R.A., Odegord, P.S., Maki, I.V. & Tomkowiak, J. (2011). Interprofessional collaboration: Three best practice models of interprofessional education. *Medical Education Online, 16* (1), 6035.

Bronstein, L.R. (2003). A Model for Interdisciplinary Collaboration. *Social Work, 48* (3), 297-306.

Callow, N., Smith, M.J., Hardy, L., Arthur, C. & Hardy, J. (2009). Measurement of transformational leadership and its relationship with team cohesion and performance level. *Journal of Applied Sport Psychology, 21*, 395-412.

Cannon-Bowers, J.A., Salas, E., & Converse, S.A. (1993). Shared Mental Models in expert team decision making. In N.J. Castellan (Ed.), *Individual & group Decision Making: Current Issues* (pp. 221-246). Hillsdale, England: Lawrence Erlbaum Associates, Inc.

Carron, A.V. Brawley, L.R., & Widmeyer, W.N. (1998). Measurement of cohesion in sport and exercise. In J.L. Duda (Ed.), *Advances in Sport & Exercise Psychology Measurement* (pp. 213-226). Morgantown, WV: Fitness Information Technology.

Carron, A.V., Bray, S.R., & Eys, M.A. (2002). Team cohesion and team success in sport. *Journal of Sport Sciences, 20*, 119-126.

Carron, A.V., Coleman, M.M, Wheeler, J., & Stevens, D. (2002). Cohesion and performance in Sport: A Meta Analysis. *Journal of Sport & Exercise Psychology, 24* (2), 168-188.

Côté, J., Salmela, J.H., Baria, A., & Russell, S.J. (1993). Organizing and Interpreting Unstructured Qualitative Data. *The Sport Psychologist, 7*(2), 127-137.

Collins, D., Button, A. & Richards, H. (2011). *Performance Psychology: A Practitioner's Guide*. Oxford: Elsevier.

Collins, D., Jordet, G. & Cruickshank, A. Eds. (2019). *The Routledge Handbook of Elite Performance*. Oxford: Routledge.

Collins, D & Moody, J. (2016). Role and competency for the S & C Coach. In I. Jeffreys and J. Moody (Eds.), *Strength and Conditioning for Sports Performance*. Taylor & Francis.

Collins, D., Trower, J. & Cruickshank, A. (2012). Coaching High Performance Athletes and the High Performance Team. In Veerle De Bosscher and Popi Sotiriadou (Eds.), *Managing High Performance Sport*. Routledge.

Collins, L., Collins, D. & Grecic, D. (2015). The epistemological chain in high-level adventure sports coaches. *Journal of Adventure Education and Outdoor Learning*, 15 (3), 224-238.

Cropley, B., Hanton, S, Miles, A. & Niven, A. (2010). Exploring the Relationship between Effective and Reflective Practice in Applied Sport Psychology. *The Sport Psychologist*, 24, 521-541.

Cruickshank, A, & Collins, D. (2015). Illuminating and Applying “The Dark Side”: Insights From Elite Team Leaders. *Journal of Applied Sport Psychology*, 0, 1-9.

Denzin, N. K., & Lincoln, Y. S. (2000). Strategies of inquiry. *Handbook of qualitative research*, 2, 367-378.

Evetts, J. (2002). New directions in state and international professional occupations: Discretionary decision-making and acquired regulation. *Work Employment & Society*, 16(2), 341-353.

Eys, M.A., & Carron, A.V. (2001). Role ambiguity, task cohesion and task self-efficacy. *Small Group Research*, 32, 356-373.

- Eys, M.A, Carron, A.V, Beauchamp, M.R., & Bray, S.R. (2003). Role Ambiguity in Sport Teams. *Journal of Sport & Exercise Psychology*, 25, 534-550.
- Faulkner, G., & Sparkes, A. (1999). Exercise as therapy for schizophrenia: An ethnographic study. *Journal of Sport & Exercise Psychology*, 21, 52–69.
- Fiore, S.M., Ross, K.G., & Jentsch, F. (2012). A Team Cognitive Readiness Framework for Small-Unit Training. *Journal of Cognitive Engineering and Decision Making*, 6 (3), 325-349.
- Fletcher, D., & Arnold, R. (2011). A qualitative study of performance leadership and management in elite sport. *Journal of Applied Sport Psychology*, 23, 223-242.
- Garmel, G.M. (2004). Mentoring medical students in Academic Emergency Medicine. *Academic Emergency Medicine*, 11, 1351-1357.
- Gawande, A. (2007). *Better: A Surgeon's Notes on Performance* (1st ed.). London: Profile Books Ltd.
- Gilmore, S., & Gilson, C. (2007). Finding Form: Elite sports and the business of change. *Journal of Organisational Change Management*, 20(3), 409 – 428.
- Hays, K.F. (2002). The Enhancement of Performance Excellence Among Performing Artists. *Journal of Applied Sport Psychology*, 14(4), 299-312.
- Husted, G.L., & Husted, J.H. (1995). *Ethical decision making in nursing* (2nd ed). St. Louis, MO: Mosby Inc.
- Ingham, S. (2016). *How to Support a Champion: The art of applying science to the elite athlete*. United Kingdom: Simply Said.
- Jones, G. (2002). Performance Excellence – A personal perspective on the link between sport and business. *Journal of Applied Sport Psychology*, 14(4), 268-281.

- Jones, G., Gittins, M., Hardy, L. (2009). Creating an environment where high performance is inevitable and sustainable: The High Performance Environment Model. *International Journal of Sports Science & Coaching*, 4, suppl. 139-149.
- Kyndt, T., & Rowell, S. (2012). *Achieving excellence in High Performance Sport: The experience and skills behind the medals*. (1st ed.). London: Bloomsbury.
- Knowles, Z., & Gilmore, D. (2010). Aspiration, Inspiration and Illustration: Initiating Debate on Reflective Practice Writing. *The Sport Psychologist*, 24 (4), 504-520.
- Marks, M. A., Zaccaro, S. J., & Mathieu, J. E. (2000). Performance implications of leader briefings and team-interaction training for team adaptation to novel environments. *Journal of Applied Psychology*, 85, 971–986.
- Martindale, A., & Collins, D. (2005). Professional Judgment and Decision Making: The Role of Intention for Impact. *The Sport Psychologist*, 19, 303-317.
- Martindale, A., & Collins, D. (2007). Enhancing the evaluation of effectiveness with professional judgement and decision making. *The Sport Psychologist*, 21, 458-474.
- Martindale, A., & Collins, D. (2013). The Development of Professional Judgment and Decision Making Expertise in Applied Sport Psychology. *The Sport Psychologist*, 27, 390-398.
- Mullen, B., & Cooper, C. (1994). The relation between group cohesiveness and performance: an integration. *Psychological Bulletin*, 115, 201-227.
- Mohammed, S., & Dumville, B.C. (2001). Team mental models in a team knowledge framework: expanding theory and measurement across disciplinary boundaries. *Journal of Organizational Behavior*, 22(2), 89-106.
- Peabody. (2015). The Care of the Patient. *Journal of American Medical Association*, 18, 313.

- Potrac, P., & Jones, R. (2009). Power, Conflict, and Cooperation: Toward a Micropolitics of Coaching. *Quest*, *61*, 223-236.
- Simon, H.A., & Associates. (1987). Decision making and problem solving. *Interfaces*, *17.5*, 11-31.
- Slot, O. (2017). *The talent lab: The secrets of creating and sustaining success*. (1st ed.). London: Ebury Press.
- Smith, B., & McGannon, K.R. (2017). Developing rigor in qualitative research: problems and opportunities within sport and exercise psychology. *International Review of Sport and Exercise Psychology*, 1-21.
- Tuckman, B. (1965). Developmental Sequence in Small Groups. *Psychological Bulletin*, *63*, 384-399.
- Van den Bossche, P., Gijssels, W., Segers, M., Woltjer, G., & Kirschne, P. (2010). Team learning: building shared mental models. *Instr Sci*, *39*, 283–301.
- Wagstaff, C.R.D., Fletcher, D., & Hanton, S. (2012). Positive Organizational psychology in sport. *International Review of Sport and Exercise Psychology*, *5*(2), 87-103.
- Willmott, T. & Collins, D. (2015). Challenges in the Transition to Mainstream: Promoting Progress and Minimizing Injury in Freeskiing and Snowboarding. *Sport in Society*, *18*, 1245-1259.

‘what’s important is the whole picture and having coherence’

‘understanding context, on an individual and a programme level. I think that's really fundamental.’

‘the first period for me is about familiarisation with their environment, their sport and exactly what they want’

‘we have an academy vision and mission statement and then core working principles and we expect to people to work to these’

Context & Structures

Environment
Appreciation

‘respect the culture, follow the behaviours’

‘each sport has its own culture and you’re expected to fit into that culture and behaviours or even improve them. But there are cultures, behaviours and standards that are expected’

‘it’s having clarity about what as a practitioner is the expectation’

‘need to understand what will make the customer happy...You lose customers by not understanding them, not seeking what they want from you’

Expectations

‘first of all have to clarify what is your job, is your job to satisfy the service contract company or is your job to satisfy the sport’

‘Role clarity is important, including from the sport on what they want to achieve.this is where practitioners can see clearly, right I can affect this, this and this and it will impact further up.’

‘it works well when people have a clear understanding of what their role is and can explain it.’

‘Your job role, job description, your objectives regularly reviewed to understand where you are.’

Role Clarity

Role Appreciation

‘Operating within your competency, within your discipline, within the guidelines your discipline have given you, all those things are really good practice’

Boundaries &
Professional Standards

‘self-awareness that is important. They are aware of self and able to take themselves out of the equation if they are not being the best version of themselves’

Self-Awareness

‘first and foremost is buy in, you have to have strong relationships’

‘Investing that time to get to know people and how people work and communicate is really important.’

Relationships

Understanding
People (Self &
Others)

‘Communication, over the top communication so going above and beyond and out of your way to make sure people know what is happening and you’re bouncing ideas of people.’

‘... you have to know when to say the right things and approach something and when not too. That’s another skill; it’s not just communication but having an awareness of when to approach someone.’

‘being able to flex your style, influence and get them engaged is the key’

‘holding them accountable to their processes around trying to influence’

Communication &
Influence

‘They have an ability to engage and lead and fit into a team ethos. We want to build them into a team even if they are externals.’

‘we operate a model where it is multidisciplinary and multi-functional and there is a respect for every single service’

Functioning within a
team

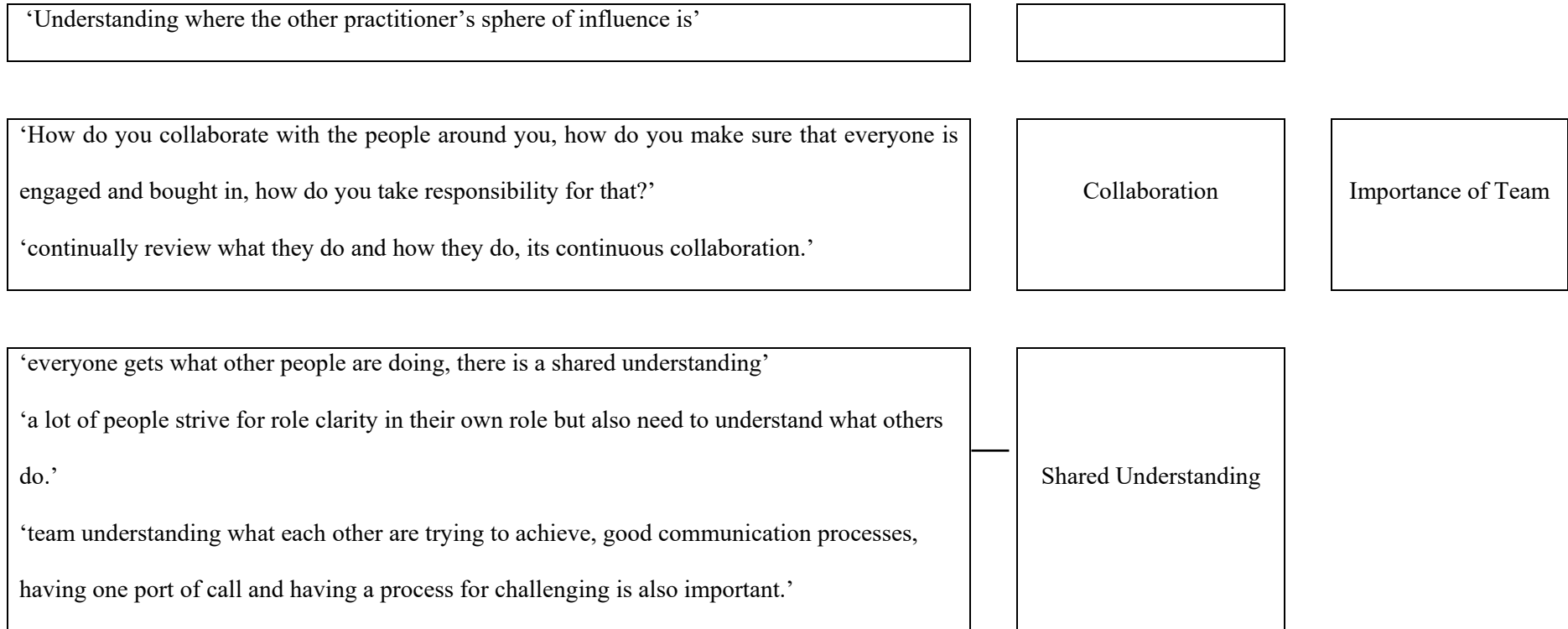


Table 1: Emergent themes

Theme	Environmental Appreciation	Role Appreciation	Understanding People (Self & Others)	Importance of Team
What is GP in SSM?	<ul style="list-style-type: none"> • Understanding surroundings and context critical aspects, aiding identification of delivery model • Importance of knowledge and appreciation of: network, organisational hierarchy and structures, performance determinants, vision, culture, nuances and expected behaviours 	<p>Importance of :</p> <ul style="list-style-type: none"> • Seeking clarity on role • Understanding role and boundaries of self and others • Delivering and accountable to role • Sharing role with clients and team 	<ul style="list-style-type: none"> • Positive professional relationships & interactions important, with client and team • Understanding influence: who, how and linked to rapport and communication • Collaborate effectively • Need to understand: personalities, attributes, perceptions, roles and background of others 	<ul style="list-style-type: none"> • Function as part of a team • Ideal scenario shared understanding of; roles, objectives, intent, boundaries and of each other as people • Knowledge on how to operate as a team, decisions will be made and to engage and collaborate with others

<p style="text-align: center;">SSMP success measures</p>	<ul style="list-style-type: none"> • Fully embedded in environment 	<ul style="list-style-type: none"> • Appropriate SSMP utilisation, includes use of wider skill set and moving beyond role specifics 	<ul style="list-style-type: none"> • Strong professional relationships - positive engagement • Ability to gain ‘buy-in’ • Two way desire to remain in the environment 	<ul style="list-style-type: none"> • Ability to ‘fit’ with team
<p style="text-align: center;">Personal attributes & skills critical for GP</p>	<p>Essential skills notes included:</p> <ul style="list-style-type: none"> • Ability to adapt to ‘fit’ the environment • Ability to embedded through understanding and adapting to context, role, people and team • Ability to manage self under pressure 	<ul style="list-style-type: none"> • Deliver within competency, expertise and boundaries • An ability to seek clarity and take accountability • Delivery with flexibility and a hands on approach 	<ul style="list-style-type: none"> • Self-awareness (SA) • Social skills – read, relate and integrate with others • Ability to build relationships – linked to communication and engagement skills • Engagement skills noted included: consideration of style (including pitch, tone, language 	<ul style="list-style-type: none"> • Collaboration skills critical – seek, support and reinforce each other • Essential traits similar to those for working with people • Link to professional respect • Desire to work in team

			<p>and timing), compromise, demonstrating interest, questioning skills and conflict resolution</p> <ul style="list-style-type: none">• Positive traits included: compassion, respect, honesty, empathy, listening skills, pragmatism, and consistency in style• Negative traits included: ego, poor style or social skills• Strong awareness of others style and influencing skills	<ul style="list-style-type: none">• An ability to lead and challenge effectively• Ego or self-interest often noted as destructive of good team work
--	--	--	---	--

<p style="text-align: center;">Processes, methods and actions relating to GP</p>	<ul style="list-style-type: none"> • Familiarisation sought through deliberate immersion • Practical examples include: attending training sessions and meetings and asking relevant questions 	<ul style="list-style-type: none"> • Actions taken to support building clarity included: setting expectations of the client, seeking information and gaining agreement of performance markers • Important link with client 'buy in' 	<ul style="list-style-type: none"> • Building relationships linked to: trust, consistency in interaction, openly sharing knowledge and some of self, showing humility and vulnerability, building empathetic intelligence through environment exposure • Communication specific processes important – knowing when, how and with whom and keeping all in the loop • Practical examples to support relationship build: solving something for the other person, 	<ul style="list-style-type: none"> • Personal actions included: supplying guidance on your role, giving informal, honest feedback and finding a common ground • Actions demonstrated in support of teamwork: having shared objectives, preparing and practicing as a team, reinforce and support others and solid communication processes
---	---	---	--	---

			regular touch points and social time	
Support mechanisms for GP	<ul style="list-style-type: none"> • Vision and organisational structure in existence, clear and shared • Expectations clearly set to individuals • Supportive performance environment, with review and feedback opportunities 	<ul style="list-style-type: none"> • Leader and organisational structures influence role • Ensure clearly defined role and expectations • Opportunity for Professional Development relevant to role 	<ul style="list-style-type: none"> • Support in developing SA and of others • Identifying lines of influence and ways • Facilitation of relationship development • Reflective practice to review 	<ul style="list-style-type: none"> • Not working in silo • Effective leadership • Clear purpose • Regular interactions both structured and informal • Create supportive performance environment (ok to fail, challenge and be vulnerable) • Clear communication and review processes • Allow time

				<ul style="list-style-type: none">• Other mechanisms included: scenario planning, celebrating together and posing team challenges
--	--	--	--	---

<p style="text-align: center;">Relevant Areas for Attention</p>	<ul style="list-style-type: none"> • Requirement for skills to assess, adapt & align to environment • Important role for Organisation and Management: creating a positive performance environment and providing support mechanisms 	<ul style="list-style-type: none"> • Role Clarity as a construct to support performance • Critical collaboration required 	<ul style="list-style-type: none"> • Managing self in positive human interactions • How to build relationships • Understanding the role of others in support 	<ul style="list-style-type: none"> • Requirement for skills and tools for working with others • Understand characteristics of and for team functioning • Provision of support structures • Constructs which may support: Shared Mental Models, Leadership Styles
--	--	---	---	--

Table 2: Perceptions and Characteristics

GP key factors

Exemplar quotes

Key theories or constructs

Environmental appreciation

“it’s those that take academia and apply it in the real world understanding the ‘how’ of applying it to who you work with, implement it and it might not be the textbook answer.” (PD3)

“each sport has its own culture and you’re expected to fit into that culture and behaviour. There are cultures, behaviours and standards that are expected, so the nuances of the professional behaviours.” (P6)

“Understanding context, on an individual and a programme level. I think that's really fundamental.” (P2)

“It’s about how you create an environment where an elite group can function properly, so you need the right tension, the right

PJDM - The ability to use analytical skills and intuition to evaluate a situation, then utilise knowledge and skills to make a judgement on the response (Martindale & Collins, 2005 & 2013). It is suggested that the effectiveness of delivery for an action can be correlated to the efficacy of PJDM in the professional (e.g., Evetts, 2002; Husted & Husted, 1995; Simon et al., 1987)

Optimising Performance Environments – The impact of the environment on increasing the effectiveness of delivery of individuals and organisation is very noted (e.g. Argote & Miron-

balance between individually thinking time and time as a group debating.” (P4)

Spektor, 2011; Biron et al., 2011; Jones et al., 2009; Wagstaff et al., 2012)

Role appreciation

“It works well when people have a clear understanding of what their role is and can explain it.” (P3)

Role Clarity - Described as an objective presence of adequate, role-relevant information, where the individual subjectively feels that there is enough relevant information to perform. Linked with positive individual performance, feelings of efficacy and delivery to requirements. (e.g. Bray et al., 2005; Eys et al., 2003)

“You’ve got to be comfortable in your skin, role and know your job. Be prepared to challenge and negotiate but know where your role and boundaries sit, respect this as a priority.” (PD3)

“(GP is) taking responsibility for the role that they have in the team and they are the ones that find out, they don’t wait to be told what their job is. They ask what and why my job is that and do not just wait for a JD and only follow that, they explore how they can deliver value to this sport and take responsibility for that.” (PD4)

Understanding

“A practitioner who stops and thinks about the people around them is important.” (P3)

Positive interactions – In psychology consultancy it has been identified that first impressions, communication and interaction

**Importance of
team**

“Investing that time to get to know people and how people work and communicate is really important. I’m about establishing rapport with people quite quickly. If you can get a sense of someone and where they're coming from and have a respect for that, even if that challenges you because it's very different to either what you’re used to or what you expect, understanding people's context and where they are coming from is important.” (P2)

“you are instrumental in creating a team environment for yourself and everyone is responsible for creating that team environment” (PD4)

style is important to building trust and ultimately effectiveness (Ballie et al., 2015). This concept has also been noted as critical in performance medicine (Gawande, 2008)

PJDM (as above) – utilising knowledge and skill to judge how you approach and respond to working with others can support GP.

Reflective Practice – reflective capacity is regarded by many as an essential characteristic for professional competence, commonly linked to effective service delivery (Knowles & Gilbourne, 2010; Ballie et al., 2015)

Role Clarity – As above. RC in the team has important repercussions on team members and, consequently, on the dynamics and cohesion of the team (Mullen & Cooper, 1994; Eys & Carron, 2001)

“Part of a good team is knowing strengths and weaknesses, you move into storming phase and it doesn’t matter what your role says it’s who has the skills and abilities to support at that time.”

(P6)

“I have worked with teams with very different personalities but who at that time are bought into the same purpose so can work together” (P3)

“(GP is when) everyone gets what other people are doing, there is a shared understanding but also an acknowledgement that different people can convey messages around different things differently” (P3)

“A team philosophy of sharing is important” (PD2)

Team Development Model – Forming, storming, norming and performing process describing the path of team towards high performance (Tuckman, 1964)

Team Cohesion - The tendency for a group to remain united in pursuit of an objective (Carron et al., 1998), has a strong relationship to performance (Carron et al., 2002; Carron et al., 2002)

Shared Mental Models – Construct suggests where members share and organise knowledge effectively its supportive of optimal team functioning; findings in other domains can be linked to this (Mohammed & Dumville, 2001; Van den Bossche et al., 2010). Could support GP, allowing aligned co-ordinated timely support, limiting conflict and optimising effectiveness in all delivery environments (Marks et al., 2000)

“I think PDs and head coaches set the importance of this. Those leaders who build teams display the importance of the SSSM team” (P3)

Leadership – Positive leadership models have been linked to successful performance (Potrac & Jones, 2009; Gilmore & Gilson, 2007). Optimal traits and styles for team functioning have also been investigated, including transformational leadership (e.g. Callow et al., 2009; Fletcher & Arndale, 2011; Cruickshank & Collins, 2015)

Table 3: Theories and constructs for good practice

