



Maximizing Multi-Disciplinary Teams Impact in High-Performance Sport: Exploring Problem Solving, Decision-Making, Expertise, & Team Performance.

Part 1: Introduction to the Problem Space

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Multi-disciplinary Team; Problem Solving; Decision-making.

Headline

In high-performance sport, athletes are supported by multi-disciplinary teams (MDT) composed of practitioners with expertise in different areas such as sports science, psychology, nutrition, and clinical care. While the concept of MDTs is well-known, the intricacies of how they operate, interact, and make decisions are not well understood or researched.

This series of essays aims to explore the individual and collective contributions of practitioners within MDTs and how sports organizations can maximize their impact. Drawing from various disciplines such as behavioural and neural economics, cognitive psychology, sociology, and business management, this series of papers seeks to establish an agenda to better support MDTs and their leaders. By investigating topics such as problem solving, decision-making (an important discriminator of team performance), expertise, intuition, and team performance, we will aim to open avenues for further

research and help practitioners create purposeful approaches to delivering multi-disciplinary service.

Introduction

In elite high-performance sport expert practitioners work with coaches in multi-disciplinary teams (MDT) to support the development and preparation of athletes. Practitioners with expertise in the Performance Sciences (Sports Science, Strength and Conditioning, Nutrition, Psychology, Performance Analysis) Rehabilitation and Clinical Care (Physiotherapy, Sports Therapy, Performance Medicine) and Player Care (Education, Wellbeing, Performance Lifestyle) often work together and alongside sports coaches to create holistic and integrated programmes of support for the athletes under their care to maximise longevity, preparedness, and performance.

Although the concept of the MDT in sport is well known the realities of how they are created, formed, and delivered is not yet well understood or researched (Reid, Stewart & Thorne, G 2004). The



interaction of an individual practitioner within a team, the interpersonal and hierarchical interactions across the team, the team's interaction with coaching staff and leadership, how the team is placed within the broader cross-organisational system is highly complex and dynamic (Cruickshanks & Collins 2013). When we consider this through the lens of decision making (Jackson, May, Whitney, Guzzo & Salas 1995), which is an important discriminator of team performance, do we understand individual (and the collectives) contribution to the outcome and do sports organisations set up teams to maximise their impact?

To begin to develop an understanding of MDT performance we must borrow from behavioural and neural economics, cognitive psychology, sociology and business management and leadership. Outlining some of the research that has been carried out on problem solving, decision making, expertise, intuition and team performance will enable us to ask whether practitioners are 'skilled doers' or 'problem solvers'. We will consider this both at the individual and team level and consider some of the models that teams can adopt to identify and solve problems before finally considering whether the team's context truly enables it to perform. Through this, we will hopefully open some interesting avenues for further research and by investigating these topics, create an agenda to better support MDTs and those who lead them.

The MDT in Sport

Multi-disciplinary service provision is commonplace in many industries because through this approach, better outcomes can be achieved (Kerr & Tinsdale 2004). There are many examples of this in healthcare where practitioners from different clinical backgrounds (Hall & Weaver 2001) work together to provide service and care to patients, those with disabilities and the elderly. MDT working can also be seen in industry, technology, defence, intelligence agencies and pharmaceutical companies where people with different knowledge and skillsets come together to solve problems and create things (Horwitz & Horwitz 2007). In elite sport there is still a lack of guidance and support available on how to encourage true MDT working, maximise the impact of the MDT approach on performance and establish what practitioners should be doing, why and how. This, for new practitioners can create a highly challenging situation where there is a lack of formal education (Horwitz & Horwitz 2007) in place to support effective working with others and how to blend their individual skill sets to create 'inter-disciplinary' solutions (Mitchell, Boyle, B, O'Brien, Malik, Tian, Parker, Giles, Joyce & Chiang, 2016).

What is the MDT practitioner?

There is an assumption that interdisciplinary 'blended' approaches are required to create the best outcomes and yet this might not be the case. Are practitioners skilled doers who, through their education, training and experience learn to be 'intuitive experts' recognising situations, symptoms and patterns and unpacking ready-made solutions



(Collins, Burke, Martindale & Cruickshanks 2015). Or do we think as creative subject matter specialists who apply agile and novel solutions to complex problems through expert diagnosis (Chasanidou, Gasparini & Lee, 2015). Do we need to better articulate what effective team working looks like, what problem solving is and when its required and how to best leverage the individual practitioner's contribution as part of a diverse teams (Page 2014) to truly create innovative solutions to performance problems?

Perhaps we need to build out an understanding of (1) whether we purposefully differentiate between performance problem types, classifications and definitions in the high performance sporting context (2), establish when individual ability and/or diversity is required to problem solve, (3) have methods to identify and classify performance problems before establishing novel or 'tried and tested' performance solutions and finally (4), how we create circumstances in which diverse teams can work together to first of all be effective and then when required, be creative to develop blended solutions to thorny wicked problems.

In attempting to answer this mandate we will better understand how individual practitioners with different skillsets in elite sport teams operate. There has been very little work on how individual practitioners contribute to MDT decision making or indeed what their methods and processes are to deliver effective service. It is hoped that through this discussion, we

can highlight some of the pertinent theory and potential challenges that exist for decision makers, problem solvers and those that work in MDTs to help support new approaches, methods and different ways of thinking about how we leverage individual ability in cognitively diverse teams (Page 2007; 2014 & Mitchell, Nicolas & Boyle 2009). In doing so, we will help new and experienced practitioners and those who manage them to create purposeful approaches to delivering Multi-Disciplinary service.

Summary

This series of papers will explore the intricacies of how multi-disciplinary teams (MDTs) operate in high-performance sports and their decision-making process. By drawing from various disciplines, we aim to establish an agenda to better support MDTs and their leaders. In sports, MDTs composed of practitioners with different expertise work together to create holistic and integrated support programs for athletes. However, the realities of how MDTs are created, formed, and delivered are not well understood. To understand MDT performance, we must consider individual and collective contributions to decision-making and team performance. Through this, we hope to identify methods for effective problem-solving and create circumstances in which diverse teams can work together to develop solutions to performance problems.

About Blended Intelligence

Blended Intelligence is not just a consultancy service, it's a game-changer for high-performance



sports organizations. By leveraging the power of diverse teams and innovative technology, Blended Intelligence enables collaborative problem-solving and delivers tailored solutions to complex performance challenges. With a focus on shared intelligence and a commitment to maximizing competitive advantage, Blended Intelligence is helping teams think differently and achieve brilliant outcomes.

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