




Creating a postgraduate syllabus for a team care diploma examination: a Delphi study

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ABSTRACT

Objectives There is no agreed standard assessment of the minimum knowledge and skills that are required to provide healthcare to participants in individual or team sports. This study aims to develop a syllabus for the Faculty of Sport and Exercise Medicine (FSEM) Team Care Diploma examination. This will provide a recognised assessment of the minimum required skills and knowledge for healthcare professionals providing care in an individual and team sport environment.

Methods A modified Delphi approach was used. A syllabus was developed by a purposeful selection of members of the FSEM, all of whom have significant team care experience. This was then reviewed by the Delphi expert panel who were team care practitioners with at least 5 years of experience. A two-round Delphi approach was used to develop a consensus.

Results The expert panel consisted of 50 individuals, with 46 (92%) completing both rounds. Of the 447 learning objectives (LOs) proposed; 430 (96%) were accepted outright, 17 (4%) were rejected and four new LOs were introduced based on expert panel feedback. The final syllabus contained 434 LOs across 6 modules (clinical governance, safe and effective practice, interdisciplinary teamwork, specific athlete groups, specific health conditions and duties of the medical team).

Conclusion This standardised syllabus will be used as the basis for the new FSEM Team Care Diploma examination which will aim to provide world-leading standardised assessment of the minimum skills and knowledge required for healthcare professionals across the multidisciplinary team providing care in individual and team sport.

INTRODUCTION

Sport and Exercise Medicine (SEM) is an evolving specialty, which incorporates aspects of musculoskeletal medicine, exercise medicine and team care. A wide range of professionals can be involved in the healthcare multidisciplinary team (MDT) in the field of team care such as doctors, physiotherapists, sports therapists and rehabilitators.¹ There is no current internationally recognised

WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ There is currently no existing standardised syllabus within the field of Sport and Exercise Medicine for healthcare professionals who practice team care.
- ⇒ A sports medicine team can include healthcare professionals across a wide range of disciplines and professional backgrounds, with variation in the levels of professional training and qualifications.

WHAT THIS STUDY ADDS

- ⇒ This Delphi study has developed a consensus syllabus using feedback from experts in the field of team care.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ The Faculty of Sport and Exercise Medicine Team Care Diploma examination will use this syllabus to ensure that team care practitioners meet world-leading assessment standards.

assessment or qualification to demonstrate a minimum level of skills and knowledge for healthcare professionals working in sport. This creates uncertainty and variability in recruitment of appropriately qualified and experienced staff for the MDT.

While athletes being looked after in a sport setting share many similarities with patients being seen in other healthcare settings, there are also numerous differences in terms of epidemiology of injury, illness and external factors.² The demands on a team care practitioner differ compared with a traditional healthcare setting as pressure on the athlete in relation to competition timelines and retaining their performance are at the forefront of care delivery, which can lead to greater ethical considerations.³ There are also specific considerations such as ensuring clinical governance, event planning, safeguarding, the role of health on performance



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and managing medications with the added context of antidoping guidance.⁴

Standardisation of quality of care is vital to ensure safe care for athletes from all members of the MDT. Standardisation within the context of this study refers to the baseline knowledge and skills all team care practitioners are expected to have. To our knowledge, there is currently no research that explores standardisation in team care. Given the wide range of disciplines working in the field of SEM, it becomes increasingly difficult to establish a clear framework of minimum standards. There is often a wide range of experience and skills among team care practitioners depending on their area of expertise.

Knowledge and skills which are imperative when working in team care are often gained through experience. As with all aspects of healthcare, this often results in cognitive bias.^{5,6} Ensuring all practitioners working in team care achieve an expected standard becomes of greater importance as there is less scope for shared reflection of good practice when compared with a traditional healthcare setting. In addition, there can be direct challenges within sport to the process of reflection and sharing audit and quality improvement work across organisations and sports. National standardisation is, therefore, important to ensure that practitioners looking after athletes are appropriately trained in the practice of clinical governance in this setting.

Regulation and clinical governance exist for the provision of safe and effective care and can help set a clear outline of what is expected of a team care practitioner within their scope of practice.⁷ Regulatory bodies produce literature that outlines minimum standards with a strong focus on patient safety, confidentiality and not operating outside of one's clinical expertise. For example, doctors in the UK who provide team care are bound by the principles of clinical governance as set out by the General Medical Council as this is their regulatory body.⁸ Similarly, physiotherapists, sports therapists and rehabilitators have their own professional bodies. Given these professions are all regulated by different bodies, there will be differences in the expectations placed on them depending on their role.

This Delphi aimed to gain a consensus from members of the SEM MDT who have actively been engaged in team care on a number of learning objectives (LOs) for team care.^{9–12} With the ultimate aim of developing a team care syllabus on behalf of the Faculty of Sports and Exercise Medicine (FSEM) UK which will provide an educational framework for the upcoming diploma examination. The consensus syllabus allows for a standardisation in the provision of care and will encompass the roles of all members of the SEM MDT who provide team care, maintaining an emphasis on all aspects of clinical governance in relation to team care.

METHODOLOGY

Study design

A modified Delphi approach was used to seek consensus from experts in the field of team care. The Delphi methodology involves using an iterative approach allowing anonymous expert contribution to accept or reject key ideas across multiple rounds. Feedback is provided to the expert panel before the start of a new round. It is a commonly used methodology in the field of syllabus development.^{13,14} This study was conducted as a modified Delphi as an initial syllabus was developed prior to commencing feedback in June 2023.¹⁵

Equality, diversity and inclusion considerations

The Delphi research and authorship team featured early and later career researchers across the scope of the MDT with ethnic and other minority groups represented across the authorship team. The syllabus development team was a team of clinicians who were well established in the field of SEM all being members of the FSEM, however, there was a clear gender imbalance in this team with only 26% (6/23) identifying as female. The expert panel from whom consensus was sought were all based in the UK, meaning the consensus may not be as applicable to lower socioeconomic countries and countries with cultural differences.

Patient and public considerations

Due to the nature of the study, no patient or public involvement was deemed necessary or appropriate.

Developing the syllabus

26 SEM consultants and registrars who were current Members or Fellows of the FSEM and had at least 5 years experience in providing healthcare in a team sport environment were recruited internally to write LOs for the syllabus via an open expression of interest. JK acted as the lead for the development of the syllabus on behalf of the FSEM with JH as the designated faculty lead for the sport committee. It was important the syllabus group represented a diverse range of individuals considering factors such as: gender, ethnicity and sports-specific representation such as para-sport and paediatric sports medicine.

The 26 individuals were split into subgroups according to their expertise to develop LOs for the syllabus focused on both knowledge and skills that would be expected as a minimum standard for healthcare practitioners providing healthcare to athletes in a high-performance sport setting while always remaining within their own scope of practice.

Modules were written primarily through discussion between members of each subgroup using insight and opinion from their own experiences and practice. Following this, time was given to the wider group to review each module and make suggestions. JK developed the LOs submitted by the subgroups to form the final syllabus on behalf of the FSEM.

Table 1 Expert panel eligibility criteria

Role	Eligibility criteria
Doctors	<ul style="list-style-type: none"> ▶ Medical degree ▶ Full GMC registration ▶ Member or fellow of the FSEM ▶ Worked a minimum of 5 years independently in a high-performance team sport environment, focused on athlete and team healthcare
Physiotherapists	<ul style="list-style-type: none"> ▶ Physiotherapy degree ▶ Membership of the Chartered Society of Physiotherapists and registered with the Health and Care Professionals Council ▶ Membership of the Association of Chartered Physiotherapists in Sports and Exercise Medicine or Musculoskeletal Association of Chartered Physiotherapists ▶ A higher degree (masters (MSc) or equivalent) in any of the following: sports physiotherapy/sports and exercise medicine/sports rehabilitation ▶ Worked a minimum of 5 years independently in a high-performance team sport environment, focused on athlete and team healthcare
Sports therapists and rehabilitators	<ul style="list-style-type: none"> ▶ Sports rehabilitation/therapy degree ▶ Membership of the British Association of Sports Rehabilitators or the Society of Sports Therapists ▶ A higher degree (MSc or equivalent) in any of the following: sports physiotherapy/sports and exercise medicine/sports rehabilitation ▶ Worked a minimum of 5 years independently in a high-performance team sport environment, focused on athlete and team healthcare

FSEM, Faculty of Sports and Exercise Medicine; GMC, General Medical Council.

Establishing the research group

AI, AM, DV, HR, JH, JK, JP, RC and ZZ were the members of the Delphi analysis group. The group was formed of a variety of professionals including early career and established doctors and physiotherapists in the field of SEM and team care. The group reviewed each round of the Delphi including comments and modifications and determined if any changes or additions were appropriate. CN, KRM, ME, NJ, SA and WvK contributed significantly to the reviewing and editing of the manuscript.

Establishing the expert panel

Delphi studies rely on experts in a field to deliver consensus on a topic. The term expert is widely used and in the context of this Delphi it refers to individuals working in the field of SEM with relevant knowledge and experience of team care.^{15 16} Currently, the large majority of professionals working in team sport are doctors, physiotherapists, sports therapists and sports rehabilitators as such this syllabus deemed these professional groups to be eligible as experts and as such eventually to undertake the examination. Clear eligibility criteria were established by the research team to ensure expert consensus was achieved (outlined in [table 1](#)).

Recruitment to the Delphi panel

Invitations to participate were sent via various channels including advertisements to members of British Association of Sport and Exercise Medicine, the FSEM, Health and Care Professionals Council, British Association of

Sports Rehabilitators, Society of Sports Therapists and online via social media platforms in June 2023. An initial recruitment survey was sent via the secure Qualtrics platform to establish eligibility for all those interested in the study prior to the survey link being shared. This link also contained the participant information sheet outlining the purpose of the Delphi and the role of the panel. Participants were asked to check a tick box prior to the start of the survey that stated they consented to their details being shared with the Delphi group, it was made clear they could withdraw at any time. All responses were stored on Qualtrics servers and were password protected. Data were analysed using password-protected Microsoft Excel sheets. All members of the expert group were anonymised prior to their responses and feedback being reviewed.

Round 1

A single survey containing all LOs divided into modules was sent to all eligible experts following recruitment via the Qualtrics platform in June 2023. The expert panel was asked to accept, reject or modify each LO. There was a 2-week window to respond to the survey, reminders were sent via the Qualtrics platform and mobile SMS. Currently, there is no ideal consensus level to be used within Delphi methodology, however, the higher the level is set, the stronger the consensus is deemed.¹⁵⁻¹⁷ Previous studies have shown that a consensus level of 75% or more is an appropriate level to deem consensus

**Table 2** Initial syllabus is broken down into modules and LO distribution

Modules	Number of LOs	
	Knowledge	Skills
Clinical governance	20	25
Safe and effective practice	38	47
Interdisciplinary teamwork	16	23
Specific athlete groups	59	54
Specific health conditions	60	37
Duties of the medical team	35	33
Total	228	219

LOs, learning objectives.

reached, 80% was selected as the consensus level for this Delphi.^{18 19}

Round 2

Round 2 was the final review of the proposed syllabus. Experts were sent a new survey in July 2023 and asked to only accept or reject LOs that had been either amended or added following round 1. The survey was shared only with those experts who had completed the first round. Again, a 2-week window was used to allow for responses with reminders sent via the Qualtrics platform and mobile SMS. LOs that had reached consensus following round 1 and did not require further assessment were included within the survey for reference but were not available to vote on. Experts were provided with an opportunity to comment after each module on anything they deemed may have been missing or needed amending and again at the end of the survey experts were invited to comment on the syllabus. Following the survey, LOs were reviewed, and acceptance percentages were again calculated. Again an 80% threshold for acceptance was used.

RESULTS

The initial proposed syllabus

447 LOs were included in the initial syllabus created by the FSEM. These were split across six modules. Each module was split into knowledge and skills LOs across submodules, allowing appreciation of where theoretical knowledge was required versus practical skills (table 2).

The expert panel

190 individuals expressed an interest in being on the expert panel. Of these, 37% (71/190) met the eligibility criteria. This group was composed of 53 doctors, 7 sports therapists/rehabilitators and 11 physiotherapists. Further demographic information has not been included to avoid participants being identified.

Round 1

Of the 71 eligible participants, 50 completed the first round of the Delphi. This included 40 doctors, 5 sports

therapists/rehabilitators and 5 physiotherapists. 76% (38/50) of respondents identified as male and 24% as female. 93% (417/447) of LOs achieved the 80% consensus threshold. The 30 LOs that did not reach consensus were discussed by the research team. Any LOs below 60% consensus were removed from the syllabus, those between 60% and 80% consensus were discussed, and relevant modifications were made based on feedback from the expert panel. 14 LOs were modified, 16 LOs were rejected and 4 new LOs were introduced based on expert panel feedback.

Round 2

Of the 50 individuals that completed round 1, 92% (46/50) completed round 2, including 38 doctors, 5 physiotherapists and 3 sports therapists/rehabilitators. 76% (35/46) of respondents identified as male and 24% as female. The mean time working in team care among the expert panel was 16 years (SD 7.83).

18 LOs were voted on in round 2. 94% (17/18) reached consensus among the expert panel including all LOs that were added at the conclusion of round 1. The only LO that fell below the 80% consensus was 'Q251 Knowledge: should be able to describe: The medical and performance aspects of gender transitioning.' Feedback for this LO was that other LOs covered care of transgender athletes adequately. Therefore, this LO was removed.

Given a consensus had been reached on all but one objective in round 2, and the justification for rejection was reasonable, the Delphi was stopped at this point. Consensus was reached on 434 LOs, which form the final syllabus (available in online supplemental information).

DISCUSSION

Summary of findings

By using a modified Delphi methodology, a consensus syllabus consisting of 434 LOs across 6 modules was developed based on the opinions and experiences of 46 experts in the field of team care across multiple disciplines. It is hoped this syllabus will benefit practitioners who are looking for a foundation for their future practice.

The importance of standardising team care

As SEM becomes more widely recognised, it is important to maintain the value of the professionalism of those working in SEM. This will ensure athletes receive the care they deserve, are appropriately managed within their teams and when needed are referred appropriately for specialist care.

Clinical implications

Benchmarking has been found to be a valuable tool to improve healthcare quality and outcomes, and the FSEM team care examination provides a clear way for practitioners to benchmark themselves.²⁰ This will ensure the required standards to practice safely and effectively will be met. It will also allow practitioners the opportunity to

reflect on their practice and develop areas they identify as requiring further development.

Study limitations

Each member of the MDT will have different competencies and scope of practice. As such, adopting a one-size-fits-all approach to standardisation may be practically difficult. The syllabus itself was written primarily by doctors in the field of SEM and the Delphi itself garnered most of its responses from doctors. The research team attempted to recruit more individuals from other areas of the MDT, however, given the high number of doctors involved, the expert panel was limited in the overall pool of practitioners. Therefore, some areas of the syllabus may be less relevant to physiotherapists, sports therapists and sports rehabilitators given the differences in their remit. The study and the syllabus, therefore, presume that individuals are aware of and will continue to work within, their own scope of practice.

Following the theme of representation, of those that responded to round 2, only 24% identified as female (11/46) with the remainder identifying as male. This figure is a reality of the current landscape of sports medicine as a specialty, with previously published work showing women account for less than 20% of team doctors in elite sport environments.^{21 22} Therefore, it may be assumed the response rates received in this study are a relatively accurate representation of the gender split currently present within SEM. This is something that should be addressed at a wider level to ensure equality and diversity are at the heart of the specialty moving forwards.

The number of LOs included within the syllabus was a limitation to the methodology. It led to the Delphi survey being very time-consuming, thereby potentially being influenced by responder fatigue and cognitive biases.²⁰ The first round took up to 2 hours to complete, the software used to distribute the survey had a save feature meaning the survey could be paused and resumed at any time to account for its length. This aimed to reduce fatigue, however, this feature also meant participants were unable to go back to previous LOs and change their responses as the survey progressed.

CONCLUSION

This Delphi study has culminated in the establishment of a consensus syllabus on behalf of the FSEM to be used as the basis for the upcoming team care diploma examination. This will allow for standardisation in a role that can be occupied by various members of the SEM MDT, with varying levels of skills and experience. The foundations of the syllabus itself can be used by institutions internationally and SEM colleagues around the world will be able to sit the FSEM Diploma examination to allow them to show they meet the necessary standards in providing safe and effective team care. The syllabus itself will continue to be updated as the landscape of team care continues to change.

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