Leadership experiences of elite football team physicians during the COVID-19 pandemic: a pilot study

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Abstract

Objectives The purpose of this study was to explore the leadership experiences of elite football team physicians during the COVID-19 pandemic.

Methods A retrospective cohort study based on a cross-sectional design by means of an electronic survey was conducted amongst team physicians working in elite professional football. The survey relied on 25 questions divided into distinct sections including among others professional and academic experience, leadership experiences and perspectives.

Results A total of 57 physicians (91% male; mean age: 43 years) gave their electronic informed consent and completed the survey. All participants agreed that the demands of their role had increased during the COVID-19 pandemic. Fifty-two (92%) participants reported that they felt they were expected to take more of a leadership role during the COVID-19 pandemic. Eighteen (35%) reported feeling under pressure to make clinical decisions which were not in keeping with best clinical practice. Additional roles, duties and demands expected of team doctors during the COVID-19 pandemic were sub-divided into; communication, decision-making, logistical, and public health demands.

Conclusion The COVID-19 pandemic has altered the nature of work performed by team physicians working in elite football. Future training of team physicians should account for these changes and ensure team physicians receive suitable leadership and communication training in order to equip them with the demands of the role. A formal process of collaboration should be implemented to ensure team physicians do not feel isolated in their clinical decision-making, and that the highest standards of medical ethics are maintained. Sporting organisations can consider practical steps for future pandemic preparedness.

Introduction

The COVID-19 pandemic has had a profound impact on every person on Earth. Few industries have been spared from the resultant economic devastation, and professional football has faced enormous financial and health challenges as it has navigated the effects of the pandemic.[1] In March 2020, as Governments throughout the world imposed 'lockdowns' to prevent the spread of coronavirus, professional football leagues were brought to a temporary halt.

Professional football provides physical, mental, social and economic benefits to its participants and those who follow it, and it was in this context that consideration was given as to how to safely resume sport during the COVID-19 pandemic with a phased return proposed.[2,3] The subsequent safe return of football was dependent on devising and adhering to strict protocols, including daily symptom monitoring, stringent social distancing and hygiene measures, rigorous testing procedures and in most cases, the requirement to play competitive fixtures 'behind closed doors' (i.e. with no members of the public present).[3,4,5] Team physicians were heavily involved in the adoption and adherence to policy. These demands were in addition to their usual workload of managing illness and injury, demands which likely intensified following the hasty resumption of football after a period of inactivity amidst a pandemic.[6,7] Team physicians were also likely to have been expected to provide support players and staff through the effects of such an uncertain period.[8]

The rapid emergence of COVID-19, and the ensuing chaos and disruption to professional football, is likely to have tested the leadership skills of team physicians. Accurate decision-making, effective communication, interdisciplinary collaboration and the management of uncertainty are all features of effective crisis leadership – and the implementation of these by team physicians will have been central to football's continued return during the COVID-19 pandemic. Professional football clubs can be considered a

complex adaptive system, and the quality of the relationships that were pre-existing or developed during the pandemic are likely to have significantly influenced outcomes.[9]

There are several studies describing the altered workload of team physicians during the COVID-19 pandemic in addition to studies detailing the impact the pandemic has had on players. However, no study has sought to specifically evaluate the leadership experiences of elite football team physicians during the COVID-19 pandemic. Such an exploration may provide insight into the challenges team physicians faced which may ultimately help to shape future clinical training and policy in football medicine and beyond. It may also provide a reference point for sporting organisations navigating both the current and future pandemics. The purpose of this study was to explore the leadership experiences of elite football team physicians during the COVID-19 pandemic.

Methodology

Study Design

A retrospective cohort study based on a cross-sectional design by means of an electronic survey was conducted. This study was conducted in accordance with the Declaration of Helsinki.[10] No previous studies were identified which sought to examine the specific research question concerned and hence considering its novel nature, a pilot study was conducted in order to gather preliminary data which may shape future research design. Ethical approval was sought and approved via EthOs (Manchester Metropolitan University) in June 2021.

Participant Selection

The inclusion criteria for the participants of the study were as follows:

1. Medical doctor(s) working as team physicians for a professional football club or a national team
2. Aged >18
3. Able to read, comprehend and write English text

Participants were invited to complete the survey over a four-week period in June and July 2021.

Survey Design

Twenty-five short and unambiguous questions or statements aimed at ascertaining leadership experiences amongst team physicians during the COVID-19 pandemic were developed by co-authors (SC, GB and MD) using appropriate expertise. The survey was internally validated by the co-authors, and trialled by an experienced professional football team physician prior to widespread dissemination. The questions were divided into distinct sections which included; demographics (e.g. age), professional and academic experience, details of organisation (e.g. playing level, country in which the organisation is based), leadership experiences (e.g. 'Please specify any particular leadership skills / duties / demands that were required of you during the COVID-19 pandemic that you would never have anticipated beforehand') and perspectives (e.g. 'Do you feel your relationship with those holding managerial roles within the club has enhanced as a result of the COVID-19 pandemic?'). Different response scales were used throughout the survey, with some requiring a 'yes' or 'no' answer, and others based on a 5-point Likert scale from 'definitely true' to 'definitely false'. For some questions, participants were invited to submit responses using free-text. Free-text responses were grouped using reflexive thematic analysis into: communication, decision-making, logistical and public health duties. Based on all questions, an electronic anonymous survey was compiled (Qualtrics XM). Information about the study was sent by email to potential participants through football medical

organisations (e.g. FIFA Medical Network, Football Medicine & Performance Association). If interested in the study, all participants gave their electronic informed consent and completed anonymously the survey. The complete questionnaire is attached to the appendix of this article.

Analyses? Don't we need a sub-section about that, even if it only states in one sentence that descriptive analyses were performed etc…?

Results

Demographics

A total of 57 physicians gave their electronic informed consent and completed the survey. Fifty-two respondents (91%) were male, and five (9%) were female. On average, participants were 43 years of age. The distribution of number of years medically qualified is outlined in Figure 1.

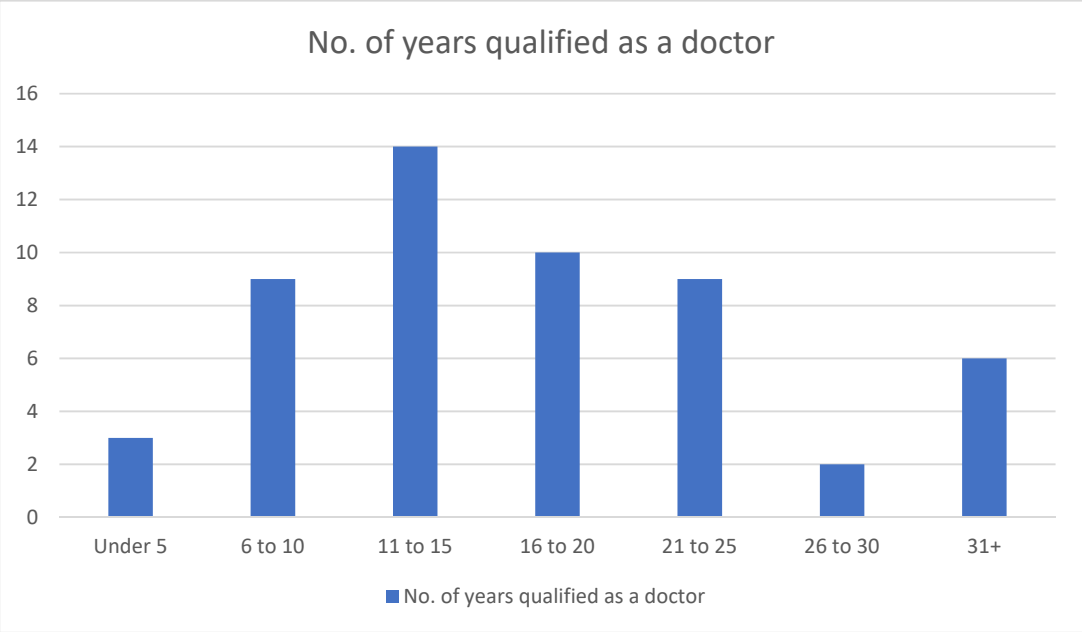

Figure 1 – number of years since participants had qualified as a doctor

Table 1 – Participant characteristics (n=57)

Participant characteristics	
Age (in years; mean+/- SD)	42 +/- 10.08
Gender (male; %)	91
Country (N)	
England	30
The Netherlands	6
Germany	5
Belgium	4
Ireland	3
Portugal	3
Other	9
Team level of play (%)	
Highest national league	41%
Second highest national league	14%
Youth / Academy	5%
International	40%

Fourteen different countries were represented in this survey. Thirty of the respondents were working with organisations based in England (53%). The remainder of respondents were working with teams based in: The Netherlands (n=6, 11%), Germany (n=5, 9%), Belgium (n=4,

7%), Ireland (n=3, 5%), Portugal (n=3, 5%), Australia (n=2, 4%), Brazil (n=1, 1%), France (n=1, 1%), Scotland (n=1, 1%), Spain (n=1, 1%), Sweden (n=1, 1%), USA (n=1, 1%) and Wales (n=1, 1%). The participant characteristics are summarised in Table 1.

Team physician perspectives on the COVID-19 pandemic

All participants agreed that the demands of their role had increased during the COVID-19 pandemic. Fifty participants (88%) agreed that their communication skills had enhanced during the pandemic. Forty-seven participants (83%) felt that their relationships with those in managerial roles were enhanced during the pandemic.

Fifty-two (92%) participants reported that they felt they were expected to take more of a leadership role during the COVID-19 pandemic, of which forty (77%) felt 'extremely prepared' or 'somewhat prepared'. Only four (7%) participants reported feeling 'unprepared'. Eighteen (35%) reported feeling under pressure to make clinical decisions which were not in keeping with best clinical practice.

All but one of the participants were in favour of team physicians receiving more formal leadership training in order to better equip them for the demands posed by the role. Fifty-four (95%) of participants agreed that training for team physicians should have a specific focus on communication skills.

Leadership skills, duties and demands during the COVID-19 pandemic

Twenty-three (40%) participants described having either current or previous experience of leading a medical department in a sporting context. All participants were invited to use free-text to detail the leadership skills, duties and demands that were required of them during the COVID-19 pandemic.

Communication:

Team physicians were expected to take on the role of communicating issues to non-medical stakeholders such as players, staff, the board, media and stadium management. Team physicians described being seen as the 'go-to' source for up-to-date information on public health guidance changes and needing to translate medical information into an understandable format for staff and players. Team physicians were expected to deliver critical information (e.g closing down departments at the club at short notice due to an escalating issue).

Decision-making

The need to be decisive during a time of crisis was a frequent theme described by the participants in this study. Many respondents also referred to making significant decisions with incomplete information. Team physicians were expected to liaise with senior management with regards to whether fixtures could proceed, the type of training, which training ground facilities could be used (e.g. gym, changing room) and were central to the planning of pre-season training camps. They also were required to consider difficult decisions with respect to 'close contacts' and the consequences of their actions had the potential to directly impact team performance (e.g. negatively affect team selection). Several respondents described needing to take significant decisions with incomplete information and having to justify these decisions to wider stakeholders – many of whom had differing beliefs, perceptions and agendas.

Logistical:

Logistical duties described by the participants included: organising and implementing testing programmes, processing test results, arranging tests for returning international players, managing the arrangement of the 'bubble', monitoring COVID questionnaires and ordering supplies (e.g. personal protective equipment). Respondents also described the need to amend

protocols (e.g. Emergency Action Plans) to ensure that they were 'COVID-compliant'. One respondent referred to the logistical challenge of arranging new-signing medicals for players based abroad.

Public Health

Many respondents were appointed as the COVID Medical Officer for their organisation, a role which extended to ensuring the suitable protocols were developed and adhered to. Team physicians were expected to assume overall stewardship of infection control and hygiene measures. Risk assessments, contact tracing, outbreak management, and PPE management were some of the public health duties that team physicians implemented during the pandemic. More recently in the pandemic, stakeholder education with respect to COVID-19 vaccination was also undertaken. The safe assessment and management of positive COVID-19 cases was a core clinical duty of the team physicians surveyed, as was ensuring the safe return to play of players following a confirmed infection.

Discussion

This pilot study explored the leadership experiences of elite team physicians during the COVID-19 pandemic through means of an electronic survey. All participants agreed that their work demands had increased during the COVID-19 pandemic.

Increased demands and risk of burnout

This pilot study is a novel investigation with no apparent direct comparative studies available for review in the literature. Several studies to date have examined the workload of physicians during the COVID-19 pandemic. A systematic review assessed the impact of COVID-19 on physicians during the pandemic, and found that the pandemic has led to increased workloads which has a direct correlation with physician burnout.[11] Although the pilot study reported here

did not investigate burnout amongst elite team physicians, it may be hypothesised that the increased work demands may have placed them at greater risk.

Ethical decision-making

Acting with honesty and integrity is a cornerstone of good medical practice. There are many external factors which make practicing medicine in an elite sporting context different from practicing in primary or secondary care. External pressures (e.g. from technical staff, supporters, media, agents etc) may negatively influence clinical decision-making leading to poor clinical practice or unethical behaviours.[12] Thirty-five percent of respondents' surveyed reported that they felt under pressure to make decisions which were not in keeping with best practice during the COVID19 pandemic. The 'high stakes' attached to some decisions made during the pandemic (e.g in the case of 'close contacts' impacting team selection) may have attracted interference from other stakeholders. It is important that other stakeholders do not interfere with medical decisions. Few studies have examined the impact of external pressures on clinical decision-making in a football environment. One study looking at concussion, surveyed elite team physicians in European football and found that 10% of the team physicians described feeling under pressure not to substitute a player with a potential concussion.[13]

The ethical difficulties experienced by doctors in football seem to reflect the common challenges and dilemmas (e.g., confidentiality, conflicts of interest, consent, disclosure, working with vulnerable populations) that are evident in other medical specialties, though may manifest in different ways.[14] The COVID-19 pandemic has exposed doctors to many ethical dilemmas, and has confronted doctors with extraordinary pressures. The high proportion of doctors examined in this pilot study who felt under pressure to make decisions not in keeping with best practice is a concern, and may highlight a need for more collaboration amongst team

physicians to ensure high standards of medical ethics are maintained and that doctors do not feel isolated in their decision-making.

Future directions – Sporting Organisations

Future pandemics are predictable, and COVID-19 has taught us that pandemic preparedness is essential to minimising the impact caused.[15] The pilot study reported here found that the demands of team physicians increased during this period and their relationship with those in managerial roles was enhanced. Within complex adaptive systems (e.g. professional football clubs) the patterns of relationships between individual components determines the overall outcome.[16] Professional sporting organisations should consider having a 'pandemic policy' in place, and this should be frequently updated. Deliberate efforts should be made to ensure that relationships with key stakeholders has been developed in advance of any issue arising. There is modest evidence to suggest that doctor-led health organisations have better health outcomes than those led by non-medical managers, which supports the importance of including doctors on organisational governing boards – and there may be a case to include medical personnel on the boards of sporting organisations.[17]

Future Directions – Research Agenda

Understanding the influence of leadership style on outcomes in football medicine is an emerging area of interest.[18] Through further investigating leadership traits of effective medical and multidisciplinary teams, there is the potential to improve clinical and performance outcomes in football medicine. It may also be useful for research to examine which training routes (if any) prepare team physicians most appropriately to cope with the demands of the job. Larger cohort studies are required to confirm whether the findings of this pilot study are applicable to a broader population.

Future Directions – Clinical Practice and Training

This pilot study identified an appetite amongst elite football team physicians for more specific training with respect to communication and leadership. It is envisaged that such training would allow team physicians to perform their role more effectively – irrespective of a pandemic or not. The nature of this training should be formulated with the specific needs of team physicians in mind.

Strengths and Limitations

This is the first study investigating the leadership experiences of team physicians within professional football during the COVID-19 pandemic. Of the cohort studied, there were fourteen different countries represented, with 81% of respondents' working either in the highest national domestic league or for international teams.

Several methodological limitations should be acknowledged. Firstly, this study was only a pilot study conducted to help with the design of future larger cohort studies. A *quasi* mixed-methods approach was used through the use of a 'free-text' option in the survey, however, a more detailed mixed-methods approach (e.g through the use of semi-structured interviews) may have provided more balanced and informative research results. Only sixteen of the participants were working full-time in professional football; extending the survey to other medical practitioners in professional football clubs (e.g. physiotherapists) who work for the organisation full-time may have provided a more rounded impression. Lastly, no official reporting guidelines were used for this study which may influence interpretation of the results.

Conclusion

The findings from this pilot study suggests that the way in which team physicians at professional football clubs operate has altered since the onset of the COVID-19 pandemic, with greater demands placed on leadership skills including; decision-making, communication and ethical stewardship. This has potential implications for sporting organisations, clinical practice and research.

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