

# Metatarsals and Magic Sponges: English Football and the Development of Sports Medicine

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*This article looks at the development of sports medicine within Britain using professional soccer as a case study. It explores the relationship between sport and medicine within wider society and argues that a cultural resistance, based on the persistence of a voluntary tradition and an amateur ethos, largely shaped the evolution of sports medicine. Footballers, however, as professional athletes have been regarded as assets and to a certain extent their value has been reflected by the medical care they have received. The article will focus on four areas of sports medicine: football's duty of care to its players and the welfare that clubs have provided for them; how the roles of football's medical practitioners—doctors and trainers—have developed; how treatments for injuries have changed over time as medical knowledge improved; and finally, some ethical issues that have revolved around the role of the football club manager.*

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**B**EFORE BOTH THE 2002 AND 2006 WORLD CUPS, the British media devoted much attention to the recoveries from broken metatarsal bones of David Beckham and Wayne Rooney. Frequent updates on their conditions not only highlighted how football had become part of celebrity culture but underlined also the increasing consumption of sports medicine within professional soccer.

This paper looks at how sports medicine has developed within Britain over the twentieth century in the context of one particular professional sport, association football.<sup>1</sup> It explores the relationship between sport and medicine within wider society and argues that a cultural resistance, based on the persistence of a voluntary tradition and an amateur ethos, largely shaped the evolution of sports medicine. Moreover, sport was traditionally based on notions of masculinity in which the giving and taking of hard knocks was seen as part of the game, especially in football and rugby. Some doctors had advocated moderation. However, athletes, imbued with notions of manliness and team spirit plus a competitive instinct, tended to ignore advice urging restraint. Instead, the nature of sporting competition promoted values of excess.

Sports medicine has been difficult to define. Allan Ryan has noted that any definition is made complicated because of a “considerable overlapping of research interests and clinical practice among the different fields.” As a result, sports medics have not been restricted to qualified doctors but have also included, amongst others, coaches, trainers, exercise physiologists, and psychologists.<sup>2</sup> The subsequent development of sports medicine has been *ad hoc* and largely a bottom-up process. By 2004, there was still no consensus in the United Kingdom (nor in many other countries) amongst sports medicine practitioners as to what actually constituted a sports medicine specialist.<sup>3</sup> Nevertheless, the objectives of sports medicine have been relatively consistent throughout the twentieth century. These have included “the prevention, protection, and correction of injuries, and the preparation of an individual for physical activity in its full range of intensity.”<sup>4</sup>

## Overview of Sports Medicine and Soccer

Although Britain was a pioneer of modern sport and had a sophisticated medical profession by the late nineteenth century, the relationship between sport and medicine was generally informal. However, the medical profession was not uninterested in the sporting body. In 1909, for example, the British Medical Association’s annual meeting discussed “the Medical Aspects of Athleticism.”<sup>5</sup> Debates also raged on both sides of the Atlantic not only over the condition of “Athlete’s Heart”<sup>6</sup> but also over the increasing number of injuries and deaths occurring in football (association, rugby, and American).<sup>7</sup> The extent to which sport was actually influenced by medical opinion is debatable, however. Instead, with the rise of professional sports, competition became more intense, and winning and the training to maximize performance took on greater significance.

Nevertheless, in conjunction with medical debates over the virtues of sport, a greater knowledge of sports injuries and their treatment was developing from the late 1800s. In 1898, for example, the *Encyclopedia of Sport* carried an entry titled, “First Aid,” which discussed the management of many sporting injuries. Early British sports physicians included Adolphe Abrahams who, in 1912, was the first medical adviser to accompany

Britain's athletic team at an Olympic games. A former runner at the university level, he had offered his services for free and acted as medical officer (MO) at later Olympics.<sup>8</sup> Arthur Porritt, a former Olympic athlete who won a bronze medal in the 100 meters at the 1924 games, was nominated as the International Olympic Committee's liaison officer on medical matters in 1948.<sup>9</sup> In 1931, a former graduate of St. Bartholomew's hospital, Charles Heald, wrote a pioneering book, *Injuries and Sport: A General Guide for the Practitioner*, in which he described characteristic injuries for thirty-six different sports.<sup>10</sup>

Germany and France, countries that had a long tradition of physical culture, had been pioneers of sports medicine. In 1912, the first association of sports physicians had been founded following a Congress of the Scientific Investigation of Sport held at Oberhof.<sup>11</sup> Later, during the 1928 winter Olympics in St. Moritz, thirty-three doctors from eleven different nations formed the Fédération Internationale Médecine Sportive (FIMS).<sup>12</sup> In 1953, both Porritt and Abrahams had founded the British Association of Sport and Medicine (BASM). Yet British sports medicine still lagged behind others. In 1960, the Secretary-General of FIMS, Giuseppe La Cava, commented that sports medicine was widely accepted and practiced in many European countries and there was much surprise amongst Continental medical observers that sports medicine was relatively unknown in Britain.<sup>13</sup>

The expertise of sports doctors, who were mainly general practitioners, had been traditionally obtained through their professional experiences with sports teams rather than any specialized training.<sup>14</sup> In 1981, however, because of a growing demand, a Diploma in Sports Medicine, which developed into a Master's degree in Sport and Exercise Medicine (SEM), was offered by the London Hospital Medical College. Later, in 1998, the Academy of Medical Royal Colleges and their Faculties in the United Kingdom and Ireland formed an Inter-Collegiate Academic Board for SEM to train sports doctors.<sup>15</sup> It was not until 2005 though that the British government recognized SEM as a specialty, allowing injured recreational athletes to see a sports doctor free of charge on the National Health Service.<sup>16</sup>

Soccer has been at the forefront of developments within sports medicine in Britain. Whereas boxing has highlighted ethical matters because of the controversial nature of the sport and track and field athletics can draw attention to issues like gender testing, football's relationship with medicine has largely been driven by the forces of competition and commercialization. Commercialization in British football, however, if not absent, was initially limited, a factor that probably inhibited medical developments within the sport. Whether professional or amateur, British sports in general have been administered by unpaid volunteers who ran them for the sake of their sport rather than for commercial gain. Although professionalism was legalized in 1885, the Football Association (FA) remained an inherently amateur organization for most of the twentieth century. Without eliminating commercialization, the FA placed restrictions on directors making money from the game.<sup>17</sup> The Football League had been based on mutuality and club directors were generally imbued with a sense of the British voluntary tradition and looked to serve their local club, almost as a civic duty. In addition, labor market controls, like the maximum wage (1901-1961) and the retain and transfer system (1893-1963), further constrained commercialism and hence the value of players. It was only in 1992 with the formation of the Premier League and its subsequent relationship with Rupert Murdoch's television company, BSkyB,

that English soccer began to display overt signs of becoming more business-like. In addition, British attitudes towards coaching and training have echoed the persistence of amateurism and have been characterized by a lag in comparison to its sporting competitors. Moreover, in the management of British football the virtues of experience have traditionally been placed above education and qualifications.

Nevertheless, footballers, as professional athletes, have been regarded as assets by their clubs and to a certain extent their value has been reflected by the medical care they have received. To explore this process the article will focus on four areas of sports medicine: football's duty of care to its players and the welfare that clubs have provided for them; how the roles of football's medical practitioners—doctors and trainers—have developed; how treatments for injuries have changed over time as medical knowledge improved; and finally, some ethical issues which have revolved around the role of the football club manager.

### **Duty of Care and Welfare Provision**

The duty of care that sport has had for its athletes has its roots in the perception of sport itself in Britain. There has been a feeling that sport has been somehow autonomous from the rest of society. Organizations like the Football Association have subsequently acted like quasi-legal bodies and have been left largely to their own devices.

From its early beginnings as a professional sport, however, injuries have been an occupational hazard for soccer players. Before the First World War, though, football clubs did not have any binding medical obligations towards their employees. At an inquest following the death of the Manchester City FC player, Di Jones, in 1902, the club resisted claims of liability. Instead, it sought to blame Jones's insistence on walking from the field to the ambulance as having "caused more trouble than anything else." The jury had "wanted to impress upon football clubs that they should not allow a man to walk off the field in a case like that." However, the Coroner disagreed. He stated, "Are football clubs to supply a medical staff on their field? I don't think there is any obligation on them to do that."<sup>18</sup> There was to be no obligation for many years to come. It was not until 1981 that the Football League brought in a regulation stipulating that it was the responsibility of the home club to ensure that a qualified medical practitioner was in attendance throughout the match.<sup>19</sup> Later, following the Hillsborough disaster in 1989, "crowd doctors" were introduced whose main responsibility was the spectators. It was the 1990s before professional football clubs were subject to health and safety requirements to reduce the level of risk of injury.<sup>20</sup> And it was only in 1997 that, in an attempt to prevent and control injuries, the Football Association undertook its first national audit of injuries in professional football.<sup>21</sup> By contrast other countries have had more demanding standards of care for athletes. In 1971, a law was passed in Italy that every athlete wishing to participate in competitive sports must undergo an annual medical screening assessment.<sup>22</sup>

The football authorities, though, have been concerned to make the game safer and have gradually modified the laws of the game to make this possible. At its inception in 1863, for example, the FA banned the practice of "hacking." Changes to the laws, however, need to be seen in light of how the game itself was viewed and played. Throughout the twentieth century, football in Britain, unlike most other countries, has been characterized by its emphasis on physical contact and manly virtues. As a result, hard tackling and

heavy shoulder charges caused many injuries. As much as concerns for safety, the FA was anxious as to whether certain practices were considered fair play.

Stricter disciplinary measures were introduced and enforced, causing a reduction in violent play. As early as 1881, the FA Laws had stated that a caution might be given to players for “ungentlemanly conduct,” something that covered a wide range of offenses. Referees were made the sole judge of fair play in 1891 and given greater powers in awarding free-kicks and penalties for fouls.<sup>23</sup> In 1937, the FA had vetoed Wolverhampton Wanderers FC’s proposed summer tour to Europe as a punishment for the club acquiring seventeen cautions during the season, more than any other.<sup>24</sup> Goalkeepers were often the victims of rough play, and there were some high-profile fatalities.<sup>25</sup> The first piece of protective legislation for goalkeepers had been passed in 1893 when it was forbidden for players to knock the goalkeeper over when the ball was played into the goal area. However, it was still permissible to charge the keeper if he was in possession of the ball.<sup>26</sup> While the rest of the world had rejected it by the 1930s, charging the keeper was still common in Britain for some years after.<sup>27</sup>

Professional footballers have traditionally come from the working classes, and early welfare strategies were not dissimilar to those adopted by friendly societies, part of the working-class tradition of self-help. Aston Villa FC, for example, had dispensed gratuities to injured amateur players as far back as 1879-1880. Early professional clubs such as West Ham United established specific arrangements with local hospitals to treat its players.<sup>28</sup> Because of a rise in the number of injuries clubs began to insure themselves against claims from players who would lose time off work from football injuries, leading some clubs to establish more formal medical arrangements. In 1898, Middlesbrough FC, still an amateur club, had taken out insurance on its players who held everyday jobs. One clause in its policy stated that a player shall at once retire from the field and have the injuries immediately attended to and he shall not resume play without the permission of a duly qualified surgeon or medical man, etc.<sup>29</sup> Middlesbrough players were awarded twenty shillings for an injury that rendered them unable to work for three months.<sup>30</sup>

These initiatives had been prompted by the introduction of welfare reforms from the late nineteenth century, which under certain conditions made employers liable to compensate injured workers. When the Workmen Compensation Act of 1906 was extended to all classes of manual workers it included professional footballers. In 1912, professional footballers were later declared manual workers under the 1911 National Insurance Act. In response to these measures, the Football League set up its own Mutual Insurance Federation, which provided a comprehensive self-funding insurance scheme for its clubs.<sup>31</sup> Contracts between clubs and players also became increasingly complex. Early contracts had placed an emphasis on the player keeping himself in good condition, i.e. staying sober and attending training regularly. By 1906-1907, some contracts included the medical responsibilities of both club and player. In addition to his wages, John Roberts could expect his club, Wolverhampton Wanderers FC, to provide him with “the usual Football outfit and clothes with all medicines and medical services and appliances required or rendered necessary in consequence of any injury sustained . . . in the course of his employment.”<sup>32</sup>

Furthermore, partly because of the fear of a deluge of insurance claims, but also because they wanted to control their lifestyle, clubs introduced rulebooks for players. Not only were they concerned with when they should turn up for training, for example, but

also with procedures regarding injuries and medical treatment. In 1914, those players unfit to play at Wolves had to obtain a doctor's certificate from the club's own MO.<sup>33</sup>

## Football Club Doctors

It is not known exactly when the first football club doctor was appointed, but they are certainly mentioned from the late nineteenth century. A growing concern for industrial welfare generally had led some organizations to appoint medical officers. The Post Office had employed a full-time medical officer since 1855, while railway, gas, canal, and chocolate makers like Cadbury and Rowntree all established medical facilities and were later followed by manufacturers such as Boots, ICI, and Pilkington. In the Second World War, industrial MO's, along with nurses and first-aid staff, were seen as necessary for larger factories, although smaller places of work were neglected. Workplace doctors had little experience of treating industrial disease as teaching in occupational health was not a standard part of medical education. Instead, there was "a preference for treating disease in the context of the family rather than in the context of work."<sup>34</sup> Similarly, until the late twentieth century, there was little training for the job as a football club MO. Barrie Smith, a club doctor at Aston Villa FC, later commented that "by and large one learns on the job."<sup>35</sup>

Football club doctors were honorary positions and becoming a MO for the local team was for many a perk of the job. It also owed much to the British voluntary tradition. During the early twentieth century, the social aspirations of doctors had reflected a growing urban middle-class propensity for joining associations, and becoming a football club MO was part of that urban civic scene.<sup>36</sup> One of the earliest football doctors was James C. Baxter. A club director, he acted as Everton's MO from 1889 to 1928, something that complemented his wide range of other voluntary activities. Not only was he a magistrate and a local councillor, but he was also MO for an orphanage, a seminary, a dramatic society, and several insurance companies.<sup>37</sup> In keeping with the voluntary nature of the job there was little if any financial reward. A survey of club doctors conducted in 1961-1962 found that, of the forty-five who participated, thirty-two gave their services free while the remaining thirteen were either paid or received an honorarium.<sup>38</sup> The professional soccer market for sports medicine qualified doctors, though, has remained a narrow one with GPs unlikely to give up their lucrative practices to specialize.<sup>39</sup>

Many doctors had probably developed an interest in sport after playing it at university or medical school and in local leagues. Others were supporters of the clubs they worked for although some did have a professional interest in their position. Before becoming doctor at Leeds United, Ian Adams had developed an interest in soft tissue injuries following a stint with the paratroopers during his National Service in 1956-1958, partly because they were "very sporty" and also because parachuting caused lots of injuries. He later ran a sports injury clinic.<sup>40</sup> But involvement in glamorous football clubs was attractive in other ways. In 2006, for example, Charlotte Cowie, the Head of Medical Services at Tottenham Hotspur FC, described the best part of her job as "sitting pitchside at a Premiership match."<sup>41</sup>

Like James Baxter, some doctors have been directors of their clubs. In 1961-1962, it was found that "many are on the Board of Directors at their club."<sup>42</sup> There was a long tradition of this dual role. Andrew Stephen, a Scot, became a club doctor at his local club Sheffield Wednesday just after the war when the senior partner in his practice, and the

club's previous MO, had been made a club director. In 1949, Stephen himself became a club director and in 1955 its chairman. Stephen, who claimed that he "drifted into football rather by accident than by intention," later became chairman of the FA (1967-1973).<sup>43</sup> He seems to have made only a small contribution to sports medicine, however.

Unlike the strict screening process of the medical world, the appointment of club doctors has usually been through personal connections, whether a son succeeding a father or a GP taking over from a partner. Many of the appointments have been long-standing. A current doctor of a team in the Football League championship described how for several years he filled in on and off for the old doctor, who had worked at the club for eighteen years then simply took over when he retired.<sup>44</sup> At Aston Villa, Barrie Smith "drifted into it by invitation" from David Targett, then the current club doctor and a member of his year at medical school.<sup>45</sup>

With the abolition of the maximum wage in 1961, sports medicine was given a higher priority by the FA. However, partly because of Britain's conservative sporting sub-culture, subsequent medical developments were haphazard. It is only since the 1990s that football has taken the role of medicine more seriously. In 1961-1962 there had been a series of regional meetings for club doctors to discuss their role and make suggestions how medical help to players could be improved. Change, however, was slow and at times very slow. It was only in 1963 that the FA appointed the first England team doctor, Alan Bass, from Arsenal, and it was still an honorary position.<sup>46</sup> The FA had had a medical adviser, Dr J.A. Sommerville, another Arsenal doctor, but he seems to have made little impact.<sup>47</sup> In comparison with some other countries, British football was a late starter in its attitudes to medicine, just as it was in its appliance of scientific and technical knowledge. Even in the 1924 and 1928 Olympic football tournaments the victorious Uruguayan team had been accompanied by a doctor.<sup>48</sup> Brazilian clubs have also had a tradition of employing doctors. For the 1958 World Cup, which Brazil won, the team physician, Hilton Gosling, even helped to pick the team.<sup>49</sup> Full-time doctors have been common at Italian clubs, although this may be partly because of market forces as in Italy, compared to the U.K., there are three times as many doctors per head of population.<sup>50</sup>

An FA medical committee was not formally established until 1983, and then its role was initially limited. Rather than put proposals into action, "the medical committee had been formed to put forward opinions for discussion by appropriate [FA] committees."<sup>51</sup> At one stage, between September of 1989 and March of 1991, it did not hold a meeting, indicating the importance with which it was viewed. There were initiatives, however. In 1977, for example, the FA had sanctioned and paid for research into the possible causes of back injuries in players.<sup>52</sup> Later, the medical committee was at the forefront of establishing the National Rehabilitation and Sports Injury Centre at Lilleshall in 1986, although it was noted that Football League clubs rarely used it.<sup>53</sup> Regular conferences were also organized including one with the Royal College of Surgeons of Edinburgh, and since October of 1989 there has been an annual medical conference for football people more generally.<sup>54</sup> Twice-yearly meetings for Premier League doctors have been held from 2003, while since 1998 meetings for doctors of footballing academies are held three or four times a year.

The actual job of the football club doctor has evolved gradually. Most of it is routine with about 70 percent of daily treatments because of illnesses. Because of the part-time

nature of the job, and with most club doctors also in practice, team physicians only had a limited time to see footballers. Early club doctors, such as West Bromwich Albion's Issac Pitt, would usually hold a weekly clinic with injured players, report the state of fitness of some injured players to the board, and sometimes accompany them on visits to specialists.<sup>55</sup> Later the demands increased, although they differed from club to club. During the 1970s, Leeds United's Ian Adams would go in five days a week at 11:00 a.m. for about forty-five minutes. He covered all first and second team home games and when Leeds entered European competition he traveled with the team. When he was England's team physician, Neil Phillips used up all his holidays due to the time he spent on international duty. More recently, the doctor has been an ever present member of the backroom staff at both home and away matches.

Since 1992 and the advent of the Premier League, the demand for sports medicine expertise has increased amongst football clubs and has been reflected in the growing number of football MO's who have gained sports medicine qualifications. By 1999, for example, Sheffield Wednesday employed three full-time doctors, all of whom had sports medicine qualifications.<sup>56</sup> From 2002-2003, doctors who had not previously held a football club post needed to possess a diploma in sports medicine to get a job.<sup>57</sup> Chelsea FC, owned by the Russian oil billionaire Roman Abramovich, appointed Bryan English in 2005 as its new doctor. English had previously worked at the Institute of Sport and was employed as UK Athletics' Chief MO.<sup>58</sup> Increasingly, if slowly, more doctors have been subject to a more rigorous screening process. In 1998, a doctor of an academy at a top Premiership club was invited to apply for the post, and he was interviewed along with two other candidates while the first team doctor of another current Premiership club claims that he was headhunted.<sup>59</sup> This quest for expertise has, to a small extent, broken down gender barriers with some clubs employing female doctors. Before working at Tottenham Hotspur, Charlotte Cowie, was the Chief Medical Adviser at Fulham FC and the Chief MO for the British Olympic team at its training camp before the Sydney games.<sup>60</sup> Phyllis Windsor has been Dundee FC's doctor since 1992. A consultant clinical oncologist by profession, she later gained a M.Sc. in Sports Medicine.<sup>61</sup>

The importance that football clubs now attach to medicine was highlighted by the appointment of a "neutral" team physician to the English national team in 2002. Previously, the job had been shared by two of Arsenal FC's doctors, John Crane and Tim Sonnex. They were replaced, however, following protests from other clubs who argued that these doctors were privy to confidential information about their opponents' players and that this led to a potential conflict of interest. It perhaps showed how the football club doctor once regarded as something of a gentlemanly role was now subjected more to the commercial realities of business.<sup>62</sup>

## The Trainer

Within the relationship between soccer and medicine, it has perhaps been the image of the trainer jogging onto the pitch with his bucket and so-called "magic sponge" to comfort an injured player that has been most emblematic. The development of their role over the twentieth century has highlighted a process of professionalization but also much cultural resistance to it. Unlike doctors, who were trained on a university course, the

origins of football club trainers have owed much to popular medicine. They relied on experienced-based methods to treat players' injuries rather than any professional medical knowledge.<sup>63</sup> Transference of knowledge was usually through word of mouth and was guarded as it was not in an individual trainer's interests to share his experience and knowledge with those outside of his immediate circle.<sup>64</sup> It was a male world, but it was women who dominated the only organization to offer training that would have been useful to the football club trainer. The Society of Trained Masseuses was formed in 1894, but given how men dominated football it was unlikely that clubs would employ qualified female masseuses.<sup>65</sup>

The first generation of football club trainers was mainly made up of professional athletes and athletic trainers who came from working-class backgrounds. As football was a new industry, there were few ideas on what constituted training and at least this group had some experience of fitness training and treating injuries. Bill Dawson had been a professional sprinter, and in 1890-1891 he had been asked to become the trainer of Stoke City FC, replacing another professional runner, Charlie Wright. Dawson admitted that he did not know anything about football, but "I knew how to get a man fit."<sup>66</sup> Training methods were initially rudimentary and consisted of much "lapping" of the pitch but little ball practice. Trainers had reputations as "rubbers" and before games dressing rooms would smell of embrocations like wintergreen. A player's pre-match "rub down" was a ritual that continued well into the twentieth century. James McPherson, another former athlete from Victorian Britain, was trainer of Newcastle United FC from 1903 to 1928. He was succeeded by his son James Jr., an example of keeping specialized knowledge in the family.<sup>67</sup> One break with this trend was the appointment in 1910 of Hubert Dillon as Birmingham City FC's trainer. Dillon had served in the army and had previously worked as a chief physical instructor in an education college teaching Swedish Drill.<sup>68</sup>

It was not until the inter-war period that most trainers came from the first generation of former players. For reasons of discipline, it was felt that they knew how to handle professional footballers better than those from other sports who only dealt with a few athletes at a time. However, they were still largely sympathetic appointments, hired as much for the service they had given to the club than for their medical knowledge. As was the culture in English soccer, they learned the job on the job. There were some developments, however, with a number of trainers having benefited from their wartime experience. In 1922, West Bromwich Albion FC recruited Bill Gopsill as their trainer who in the war had been a sergeant in the Royal Army Medical Corps (RAMC).<sup>69</sup> Following the First World War, massage had gained increasing public recognition and status due to the physical therapy given to wounded soldiers.<sup>70</sup> Arthur Campey had also served in the RAMC. He later worked at Bradford Park Avenue before joining Leeds United as its trainer in 1928.<sup>71</sup> The most famous trainer during the inter-war years was Tom Whittaker of Arsenal, then the most successful and modern club in England. After retiring from the game through injury in 1925, he studied a course of anatomy, medical gymnastics, electrical therapy, and massage. Whittaker later became the regular trainer for the England team, and his reputation spread beyond football. He was trainer for the 1936 British Davis Cup team and also treated tennis players like Fred Perry. He ran an informal sports injury clinic and clients included Steve Donoghue, the jockey, and cricketer Jack Hobbs.<sup>72</sup>

After the Second World War, most trainers were still former players who used their practical experience to treat injuries. With a growing awareness of medical treatments available following publicity received during the war and the establishment of the National Health Service in 1948, players, in an era when deference was declining, were becoming more discerning and critical of the treatment they received. In 1954, in an accident that ended his career, Joe Mercer, captain of Arsenal, sustained a broken leg. He recalled how he feared that the Arsenal trainer, Billy Milne would attend to him and make the injury worse. Mercer said of Milne, a former Arsenal player, "He was the toughest, hardest and bravest person, but he knew nothing about physiology and anatomy."<sup>73</sup> For most of the twentieth century, there was little regulation over the position of the club trainer.

Some people, however, were starting to think more seriously about treating players' injuries, and a growing, if small, band of trained physiotherapists began working in football clubs. By 1961-1962, twelve out of forty-five clubs employed full-time qualified physiotherapists with eleven employed on a part-time basis; there were none at twenty-two clubs.<sup>74</sup> Some had trained at Pinderfields Hospital's College of Remedial Gymnastics in Wakefield. This became a *de facto* training center for future football club physiotherapists. In 1945, the government had initially selected the hospital to train Army physical training instructors—many who had been professional footballers—as remedial gymnasts who could then work in civilian rehabilitation centers.<sup>75</sup> Whereas physiotherapists worked with machines such as ultrasound, remedial gymnastics was exercise-based, something that appealed more to football clubs.<sup>76</sup> In 1956, the Ministry of Health agreed to allow former professional footballers to train at Pinderfields.<sup>77</sup> The college's first two principals, John Colson and William Armour, later wrote a sports medicine text, *Sports Injuries and Their Treatment* (1961). In addition, from the 1950s through to the seventies, the Football Association's in-house journal, *FA News*, regularly published articles on the treatment of injuries.

The FA had also started treatment of injury courses for club trainers just before the war. They were later run by Armour, but attendance was not compulsory.<sup>78</sup> While thirty-two club trainers had attended the trainers' course, eleven others had not by 1961-1962.<sup>79</sup> In 1958, in an attempt to improve the standard of care for footballers, the FA decided to offer a three-year course leading to an FA Certificate in the Treatment of Injuries. It was stated, however, that "[i]t is not intended that this certificate should rank in any way as a qualification in the medical world but that it shall be an incentive for trainers who deal with the treatment of injury." Instead, it was hoped that the certificate would be recognized as a minimum qualification for trainers, although not a mandatory one.<sup>80</sup> Personal contacts remained the main method of appointment for trainers, as it would be for physiotherapists.

Most developments were on the initiative of individual clubs, of which Arsenal FC was again at the forefront. In 1960, Bertie Mee, who had qualified as a chartered physiotherapist in the RAMC during the war, was appointed the club physiotherapist. He had trained, and also taught, at Pinderfields, and would later manage Arsenal. His successor as physio, George Wright, another Pinderfields graduate, had actually been "poached" from Middlesbrough, indicating how some clubs were looking for the best expertise available.<sup>81</sup>

Middlesbrough had recruited Wright from a local hospital where he had been Superintendent Physiotherapist. Wright's appointment at Middlesbrough had led to the sacking of assistant trainer, Mickey Fenton, who had been a popular player for the club.<sup>82</sup>

The working conditions of a football club physio were not attractive to the women who made up the vast majority of chartered practitioners. The job involved long hours and low pay, and this also made it difficult to attend courses and conferences to improve their professional status. In 1970, Laurie Brown, who had also studied at Pinderfields, became Manchester United's first full-time qualified physiotherapist but qualifications did not make the task any easier. It was a seven-days-a-week job and Brown, naturally, had to take his holidays during the close season. At times he also looked after the club's non-playing staff.

Brown was sacked in 1981. Rather than for any professional misconduct, it was because United's new manager wanted to bring in his own staff, something that was becoming increasingly common. Brown's successor was actually less qualified than he was, highlighting how medical care in English soccer was still largely unregulated.<sup>83</sup> The FA's medical committee later tried to tackle this issue by writing a report on physiotherapists attached to Football League clubs. It caused "some concern" amongst representatives from the Football League and the Professional Footballers' Association as well as the FA. It was also noted that junior teams attached to Football League clubs played matches at which the only official present was a coach who, in the majority of cases, had no medical qualification.<sup>84</sup>

Like football club doctors, the pool of qualified chartered physiotherapists with an expertise in sports medicine was limited. The Association of Chartered Physiotherapists in Sports Medicine, for example, was only founded in 1972. This probably meant that some old-style trainers had more knowledge when it came to treating particular football injuries. For example, Billy Ritchie, the trainer of Glentoran FC in east Belfast, was also a bonesetter and ran a successful sports injury clinic from his home.<sup>85</sup> Furthermore, it was argued within the football world that GPs did not have the experience of the bone and muscle injuries suffered in football and that the treatment they usually offered—strap it up and rest it for several days or weeks—did not match the demands of a professional sport in which clubs wanted players back playing as soon as possible.<sup>86</sup>

With the establishment of its Medical Education Centre in 1989, the FA began to take a more professional approach. Moreover, improvements to the trainers' course were made, and regulations were subsequently tightened—something that had been an aim of the FA's *Blueprint for the Future of Football*, published in 1991. By 2001–2002, the Premiership and Football League demanded that all newly-appointed senior physiotherapists had to be chartered. From 2003–2004 they were also required to hold the FA's post-graduate diploma in sports medicine.<sup>87</sup>

## Treatment of injury practices

In addition to the development of the roles of football's medical practitioners, the medical services and treatments available to professionals over the twentieth century have mirrored how sports medicine has become an increasingly specialized discipline. Yet the services and treatments utilized also need to be seen in light of contemporary medicine as well as the ability of clubs to pay for them. Although the overall medical care for early

professionals was probably better than other workers, much of it was still rudimentary. In 1909, after sustaining a compound fracture of his leg, Albert Evans of West Bromwich Albion FC was briefly examined by the doctors before being taken to the dressing room by his teammates on a shutter, converted for use as a stretcher. After receiving preliminary medical attention, he was taken to Birmingham General Hospital by a horse ambulance.<sup>88</sup> Highlighting the voluntary tradition, some of the early medical cover was provided by St. John Ambulance Brigade. In 1906, it was noted that the Manchester and Salford Corps performed duties—for crowd and players—at both Manchester United and Manchester City games.<sup>89</sup>

As far as operations were concerned, there was initially limited expertise or knowledge of football injuries, in particular, cartilage operations, and perhaps just as important, post-operative care. The first known cartilage operation, or meniscectomy, had been performed in 1883.<sup>90</sup> Even up to the 1930s it was one that footballers were loathe to undergo, as it could signal the end of their careers.<sup>91</sup> Some surgeons though did advertise themselves as specialists in football injuries. It was claimed, for example, that J. Ward, who practiced in both Bolton and Manchester was “England’s greatest bloodless surgeon” and had cured footballers of loose cartilage and fluid on the knee, conditions that other doctors had pronounced incurable.<sup>92</sup> Later medical advances meant that players were able to continue their careers. By the 1930s West Bromwich Albion sent their players for cartilage operations to a Newcastle surgeon, a Mr. Stewart, “an authority on knee troubles.” After one such operation on Geoff Stewart, it was said that, “[j]udging by the experience of other Albion players, his operation should not prove any handicap.”<sup>93</sup>

There was one establishment that did offer all clubs specialist treatment for sports injuries, John Allison’s “Footballers’ Hospital.” It was a hydropathic baths based at Matlock House, Hyde Road in Manchester and was probably the earliest example of a sports injuries clinic.<sup>94</sup> Allison was a director of Manchester City and later a Liberal councillor. For around twenty years, from the mid 1890s, many football clubs as well as Northern Union rugby clubs sent their players there for the treatment of leg and knee injuries. From the mid nineteenth century, the image of hospitals had been changing. A rise in outpatient demand saw a growth in hospital services outside the voluntary sector with more special hospitals created, some of which included surgeons. Allison’s hospital was part of this trend and surgery was part of the service, but the hospital was mainly used for rehabilitation purposes.<sup>95</sup> The resident surgeon at Matlock House was Walter Whitehead, who it was claimed had performed hundreds of operations on footballers, including those on cartilages. He also helped to devise machines to expedite recovery.<sup>96</sup> The hospital at one stage employed several nurses along with a retired Army surgeon, John J. O’Reilly. Matlock House closed down after the First World War, and there was no replacement. Instead clubs went their own ways.<sup>97</sup>

The bigger clubs, unsurprisingly, were able to afford the best medical facilities. Up to 1914, Aston Villa was the wealthiest club in the land, and in that year, it outlined proposals for building “a special room for the doctor” to be fitted up with “X-rays, radium and other modern appliances.” These plans had been partly inspired by an incident to a Villa player, Freddie Mills, who played most of a game with a small broken bone in his foot as his condition could not be quickly ascertained.<sup>98</sup> Although with football firmly in mind,

this project was not dissimilar to the occupational welfare schemes that expanded after 1918. Other clubs, like Leeds United, Queen's Park Rangers and Preston North End, later followed Villa's lead by investing in new electrical equipment.<sup>99</sup> West Ham's "electrical room" contained violet-ray, sun-ray and radiant heat lamps, and other machines that cost over £1000.<sup>100</sup>

Some methods of treatment retained a primitive air. One traditional practice had been for players to sit all afternoon with towels over their legs pouring boiling water over the towels.<sup>101</sup> During the week before he set a Football League record of sixty goals in a season in 1928, Everton's Dixie Dean had had literally round-the-clock care from the club trainer, Harry Cooke, on a pulled thigh muscle. Cooke put hot plasters on Dean's leg and changed them every two hours by staying at Dean's house for three nights and awakening him to put on a fresh plaster.<sup>102</sup> Some old-style treatments continued after the war. One player has described how during the 1950s he sustained a twisted ankle and had to keep dipping the ankle into a wax bath until it had a thick coating.

From a small survey of former players covering the period from the 1940s to the 1980s, it seems that most former players were relatively happy with the treatment they received, although this raises questions about the perceptions that they had of the treatment they expected and with what they were able to compare it. Some players were more critical. One player from the early post-war years has described how he sustained an injury during a game but after being "strapped-up" he played on as no substitutes were then allowed.<sup>103</sup> The strapping was left on even when he had a bath and was not removed until the following morning. It also took his skin off as the trainer had used the wrong side of the tape. The injury was later diagnosed as damage to a cruciate ligament. Someone who played in the 1980s for lower league clubs was critical of the post-operation care he received following an ankle operation and felt this was due to the physiotherapist who was "inadequately qualified." A goalkeeper who played during the 1960s and 1970s for clubs throughout the league, though fortunate enough not to sustain any serious injuries, commented that "physiotherapy didn't seem that sophisticated and attention to injuries on the field seemed clumsy at times—magic sponge and strong smelling salts seemed the answer to most problems!" One player from a top club in the 1970s and 1980s "felt [that the] medical side was always lacking—physios were lacking knowledge and expertise."

One post-war development that did indicate greater club interest in player welfare was undertaking medical examinations of players before buying them, although this was just as much for their benefit as that of the players. These began in Britain during the 1960s although European clubs had introduced them before then. "Medicals" were a consequence of the rise in transfer fees following the abolition of the maximum wage and perhaps more complex insurance arrangements. Although now normal, they are not compulsory nor has there been an established protocol for them or any uniformity between clubs.<sup>104</sup>

Medicals were initially routine affairs but have gradually become more sophisticated. A doctor and/or physiotherapist would usually ask the player of any past history of injuries, although players would sometimes keep information from them as it could prevent the transfer. Joints would be examined by x-ray, and the doctor would usually check the heart, lungs, urine, and blood pressure. In recent years, although not infallible, clubs have

used Magnetic Resonance Imaging scans to identify any abnormalities. Liverpool's manager Bill Shankly cancelled two proposed moves for players, Freddie Hill in 1964 and Frank Worthington in 1972, both on account of their high-blood pressure.<sup>105</sup> One of the most famous transfer cancellations because of a player failing a medical was that of Asa Hartford's proposed move from West Bromwich Albion to Leeds United in 1971 for a potential club record fee of £177,000.<sup>106</sup> It had been found that Hartford had a small hole in his heart, and it was felt by the Leeds medical team that he may have been susceptible to heart failure due to the stress of playing.<sup>107</sup>

The collapse of Ruud van Nistelrooy's transfer from the Dutch club PSV Eindhoven to Manchester United in 2000 highlighted the new financial risks involved in large transfers. The fee had been £18.5 million, then a British record, but was cancelled because of doubts raised over his knee after his medical. Armed with this knowledge, United's insurers had refused to underwrite a policy unless the club agreed to a clause ruling out seeking compensation for any injury resulting from his weakened knee. As a public limited company with shareholders to satisfy, as well as the prospect of paying van Nistelrooy £42,000 per week without playing, the club did not want to take the risk and called off the deal.<sup>108</sup>

As the value of players has increased so has the quest for the best medical expertise available. Whereas previously clubs mainly used local surgeons, now those with a worldwide reputation have been sought. One such knee surgeon has been the American, Richard Steadman from Vail, Colorado. His sports medicine background had originally been in skiing. It has been estimated that Steadman earns approximately \$5 million per year. In comparison, sports surgery in Britain remains a fledgling industry, with a top surgeon earning about £200,000. It also perhaps reflects how more of American gross domestic product (GDP) has been spent on medicine than in Britain and that more people take out private insurance in the U.S. whereas in Britain reliance has been on the National Health Service.<sup>109</sup>

## Ethical Issues

The relationship between medicine and athletes has differed from that in other workplaces and highlighted the potential clash between the principles of the Hippocratic Oath and the demands of professional soccer. While doctors and other medical staff aim to completely cure workers before they return to work, in sport it is about returning from injury as soon as possible. Consequently, this has raised the prospect of an athlete competing whilst injured, or at least not fully recovered.

This situation has been brought into sharper focus over the second half of the twentieth century with the manager becoming a more powerful and dominant figure within the football club. This has had potentially important consequences for players and their welfare. In the late 1930s Wolverhampton Wanderers' manager, Frank Buckley, had his players injected with so-called monkey glands. They were animal secretions, and during this time there had been much publicity over the potential benefits of "rejuvenation." It is possible, perhaps likely, that Buckley did it more for publicity reasons than for the purpose of any potential chemical assistance. Following an inquiry, the Football Association announced that players had the choice to refuse the injections.<sup>110</sup> The pressure of games could also influence the judgment of managers over injured players. In 1961, during the

half-time interval of one game, the Wolves center-forward, Ted Farmer, discovered that he was urinating blood after being elbowed in the stomach. Despite an examination by the club doctor the Wolves manager, Stan Cullis, forced Farmer to play on. Cullis told the doctor, very forcefully, "Wait 'til it comes through his backside before you take him off." The doctor did not intervene any further.<sup>111</sup>

Because they have been players themselves, managers think they know the mentality of injured players. Some managers would ignore injured players because they were either embarrassed or of no use to them. At Liverpool under Bill Shankly, it was said that the injured players would "almost go around with a little bell."<sup>112</sup> Some managers have interfered in the recovery process of their injured players by changing the times when the treatment room has been available, because, in their view, this would cut out any malingering. According to one physiotherapist, who worked for a division one club in the 1980s and 1990s, injured players had to report in for treatment at 8:00 a.m. and then from 4:00 to 8:00 p.m. His manager would sometimes close the treatment room for three or four days. When George Graham took over as the manager of Tottenham Hotspur FC in 1998, the club had a reputation for having an above average number of players on the injured list. One player, Darren Anderton, was referred to as "Sick Note." Graham said, "I have never accused any player of putting on an injury but what can happen is that the treatment room becomes too comfortable, so they stay too long, having nice massages." On his arrival Graham changed the treatment hours, with the last session finishing at 4:00 p.m. His rationale was that "[t]hat's just about the moment when the M25 [motorway] becomes hellish. It's surprising how many people now manage to get out of the treatment room well ahead of the rush hour."<sup>113</sup>

Playing through pain has also been part of the British footballer's mentality. How often footballers have played when injured has differed from player to player and has perhaps been because of their own perceptions of what constituted an injury. One England player from the early 1950s claimed that he never carried an injury into a game, whilst at the other end of the spectrum someone, who from the mid 1950s played for twenty years and in approximately 700 games, claimed that he carried an injury into 75 percent of them. Players have had other motivations for playing through injury, such as wanting to take part in an important game. There were other concerns for some. One player once hid an injury because he feared losing his place in the team; another said that he did not want to let his teammates down. The main reason though for playing with an injury was financial. A player from the 1960s and 1970s remarked that the "money in our day was not like today. With a little bonus and appearance money, it was nice to see it in your wages at the end of the month."

However, players have also come under pressure from the club to play when not fully recovered. This could perhaps be attributed more directly to the manager, although again this has been dependent on individual managers. It should also be pointed out that the decision to play rested mostly with the player. One current physiotherapist claimed that this happened in 99 percent of cases. A player from the 1960s and 1970s said, "I knew when I was able to play, there was no point playing when injured, it wasn't fair to myself or the club." Yet, somewhat contradictorily, he added that because of long-standing injury problems he "wouldn't entertain the possibility of playing, but [for] lesser injuries you would be strapped up and asked to play."

A number of doctors have remarked that they have enjoyed good relations with the managers they have worked with. Nevertheless, because of how the medical arrangements have evolved in football clubs, the lack of clinical autonomy and professional accountability has given managers the potential to put pressure on the club's medical team. In addition, doctors have had to work according to the demands of the game. One doctor claimed that the player had the final decision over whether he played but on occasions he, the doctor, was under pressure from management to get players fit if there was an important game coming up or they were short of players. As a result, he would come to a "compromise" with the manager. Another doctor, from a Premiership club, claimed that his manager has the final decision when to play a player coming back from injury and could overrule the doctor's opinion.

On occasions, disputes have arisen between managers and doctors. When he was club physician at Leeds United, Ian Adams resigned on four separate occasions because of arguments with the manager, Don Revie, over the fitness of players, i.e., Revie played them against Adams' advice. By the time Adams had worked off his notice, relations had thawed and he resumed his position.<sup>114</sup> Doctors' resigning from their posts over points of principle has not been confined to the modern era. In 1899, Middlesbrough's medical advisor, a Dr. Bateman, had been elected vice-chairman of the club. He was a surgeon but resigned in a huff a year later over a dispute concerning a player who Bateman said was fit but the directors, who picked the team, thought was not.<sup>115</sup>

In some ways, the voluntary nature of the job has been of benefit to club doctors, if not for the medical welfare of players. If an honorary team physician had to leave a club at least he would have his medical career to fall back on. Referring to modern sports medicine, Ian Adams has said:

I wouldn't like to be a full-time [football club] doctor. . . . I would be very loathe to . . . because your family depends on your employment, and I wouldn't like to have to depend upon the hysteria and stuff that's associated with the football club and possibly the change of manager.<sup>116</sup>

By contrast, trainers have traditionally been unqualified to work in the NHS or private practice, and football has usually been their only source of employment. As a result, a trainer under pressure because of his employment situation may have been forced to submit to a manager's demands over when to play a player recovering from injury. With the increasing number of chartered physiotherapists working in football clubs, though, there has been greater potential for professional autonomy: if they left football they were qualified to work outside the game. However, chartered physiotherapists have still had to work under the manager, and many of them wanted some influence over decisions about the fitness of players. One chartered physiotherapist at a first division club in the 1980s stated that although he and the club doctor agreed on most things concerning player fitness, the manager always wanted "star" players to perform. When at Manchester United, Laurie Brown, would, ingeniously, put injured players in plaster on occasions, as this sight would immediately dissuade the manager from being able to question his opinion. At other times, he discovered that managers and players sought a second opinion on his diagnoses without informing him.

## Conclusion

With regard to professional football, the greater financial risks and fiercer competition has seen sports medicine become an increasingly important aspect of the preparation of players. Football clubs generally have become more aware, and willing to exploit, advances in sports science in the quest for sporting success. In some ways, how the relationship between football and medicine has evolved has mirrored football's drift from its amateur past to a more professionalized outlook. Yet medicine and football have also been subject to British peculiarities. The persistence of voluntarism within British society and sport, for example, has shaped the technocratic development of sports medicine. With a lack of professional accountability, it has raised doubts over the medical care footballers have received when compared to standard practices. Advances in medical treatments for footballers though have shown how sports medicine itself has become a more specialized medical discipline. In some ways medical treatments for players have always been specific to football but some, like massage, had their roots in popular medicine and, to a certain extent, they have survived. Early orthodox medicine treatments for footballers were generally little different to those offered to the public. However, because of the game's changing face, medical treatments and innovations have become honed to the bodies of professional footballers.



<sup>1</sup>For the purposes of this paper, any references to football mean association football, i.e. soccer. The Football Association (FA) is the governing body for the whole of both amateur and professional football in England while the Football League was the main professional league until 1992 when the Premier League was formed.

<sup>2</sup>Allan J. Ryan, "Sports Medicine in the World Today" in *Sports Medicine*, eds. Allan J. Ryan and Fred L. Allman, Jr. (London: Academic Press, 1989), 3, 13.

<sup>3</sup>B. Thompson *et al.*, "Defining the Sports Medicine Specialist in the United Kingdom: A Delphi Study," *British Journal of Sports Medicine* 38 (2004): 214.

<sup>4</sup>*The Oxford Dictionary of Sports Science and Medicine*, s.v. "Sports Medicine."

<sup>5</sup>*British Medical Journal*, 25 September 1909, pp. 829-838.

<sup>6</sup>James Whorton, "Athlete's Heart: The Medical Debate over Athleticism, 1870-1920," *Journal of Sport History* 9 (1982): 31-33.

<sup>7</sup>See Roberta J. Park, "'Mended or Ended?': Football Injuries and the British and American Medical Press, 1870-1910," *International Journal of the History of Sport* 18 (2001): 110-133.

<sup>8</sup>*Times* (London), 12 December 1967, p. 12; AAA Olympic Committee Minutes, 20 May 1912, Special Collections, University of Birmingham, Birmingham, United Kingdom.

<sup>9</sup>40<sup>th</sup> International Olympic Committee (IOC) Session, 1948, St. Moritz, Olympic Museum, Lausanne, Switzerland. Porritt was born in New Zealand and competed for this country in the 1924 Olympics, although he later spent most of his life in England.

<sup>10</sup>Allan J. Ryan, "Sportsmedicine History," *The Physician and Sportsmedicine* 6 (1978): 78-79.

<sup>11</sup>*Lancet*, 5 October 1912, p. 977.

<sup>12</sup>Giuseppe La Cava, "Milestones of FIMS," *Journal of Sports Medicine and Physical Fitness* 17 (1977): 119. It had originally been called the Association International Medico-Sportive (AIMS) but was changed to the FIMS in 1933.

<sup>13</sup>*Lancet*, 19 November 1960, p. 1114.

<sup>14</sup>C.M. Tipton, "Sports Medicine: A Century of Progress," *Journal of Nutrition* 127 (1997): 878S.

<sup>15</sup>Robin Harland, "Sport and Exercise Medicine: A Personal Perspective," *Lancet*, December 2005, p. S53-54.

<sup>16</sup>M. Cullen and M. Batt, "Sport and Exercise Medicine in the United Kingdom Comes of Age," *British Journal of Sports Medicine* 39 (2005): 250-251.

<sup>17</sup>See Neil Carter, *The Football Manager: A History* (London: Routledge, 2006), chaps. 1 and 8.

<sup>18</sup>*Manchester Evening News*, 28 August 1902, p. 4; *Bolton Journal*, 29 August 1902.

<sup>19</sup>John Crane, "Association Football: The Team Doctor" in *Medicine, Sport and the Law*, ed. Simon Payne (London: Blackwell, 1990), 331.

<sup>20</sup>Richard D. Hawkins and Colin W. Fuller, "A Prospective Epidemiological Study of Injuries in Four English Professional Football Clubs," *British Journal of Sports Medicine* 33 (1998): 196-203.

<sup>21</sup>Richard D. Hawkins *et al.*, "The Association Football Medical Research Programme: An Audit of Injuries in Professional Football," *British Journal of Sports Medicine* 35 (2001): 43-47.

<sup>22</sup>*Irish Times* (Health Supplement), 13 April 2004, p. 63.

<sup>23</sup>*Encyclopedia of British Football*, s.v. "Discipline and Punishment," by John Coyle, Dave Russell, and Joyce Woolridge; s.v. "Refereeing," by Roy Hay.

<sup>24</sup>Carter, *Football Manager*, 75.

<sup>25</sup>Glasgow Celtic's John Thomson died from a depressed fracture of his skull during a game versus rivals Rangers in October of 1931. Similarly, Jimmy Thorpe of Sunderland died following a match versus Chelsea in 1936.

<sup>26</sup>Pierre Lanfranchi *et al.*, *100 Years of Football: The FIFA Centennial Book* (London: Weidenfeld and Nicolson, 2004), 129-130.

<sup>27</sup>The standardization of rules had taken place with the formation of the International Association Football Board (IFAB) in 1886. It consisted of the four British nations. In 1904, Fédération Internationale de Football Association (FIFA) was formed, and it would eventually take over the role as the game's law-maker, although the IFAB was incorporated into this process.

<sup>28</sup>Matthew Taylor, *The Leaguers: The Making of Professional Football in England, 1900-1939* (Liverpool, U.K.: Liverpool University Press, 2005), 147-162.

<sup>29</sup>Middlesbrough FC Minutes, 19 September 1898, Middlesbrough Football Club, Middlesbrough, United Kingdom (hereafter MFC).

<sup>30</sup>Middlesbrough FC Minutes, 14 November 1898, MFC.

<sup>31</sup>Taylor, *The Leaguers*, 147.

<sup>32</sup>Contract between John Roberts and Wolverhampton Wanderers FC, Wolverhampton Wanderers Football Club, Wolverhampton, United Kingdom (hereafter WWFC).

<sup>33</sup>Wolverhampton Wanderers FC, Rules for players 1914-1915, WWFC.

<sup>34</sup>Paul Weindling, "Linking Self Help and Medical Science: The Social History of Occupational Health" in *The Social History of Occupational Health*, ed. Paul Weindling (London: Croom Helm, 1985), 13-16.

<sup>35</sup>Barrie Smith, *Doc: Jottings of a Football Club Doctor* (privately published, 2004), 7.

<sup>36</sup>Ross McKibbin, *Classes and Cultures: England 1918-1951* (Oxford: Oxford University Press, 1998), 84-90.

<sup>37</sup>Simon Inglis, *League Football and The Men who Made It* (London: Willow Books, 1988), 391.

<sup>38</sup>Football Association Minutes, Report on the Regional Conferences of Club Doctors, May 1962, Football Association, London, United Kingdom (hereafter FA). A survey was conducted in which forty-five doctors from the ninety-two Football League clubs took part.

<sup>39</sup>In 2006, the average salary for a general practitioner was £100,000. *Guardian* (London), 5 May 2006).

<sup>40</sup>Interview with Ian Adams by author, 22 August 2005, Ilkley, United Kingdom, notes in possession of the author.

<sup>41</sup>*BASEM Today* 7 (2006): 19.

<sup>42</sup>FA Minutes, Report on the Regional Conferences of Club Doctors, May 1962, FA.

<sup>43</sup>Inglis, *League Football*, 391; *FA News*, November 1970, p. 4.

<sup>44</sup>This and other unattributed statements are the result of a survey of football club doctors, physiotherapists, and former professional footballers undertaken by the author between 2004 and 2006. An assurance of confidentiality was a condition of their participation. Results are in the possession of the author.

<sup>45</sup>Smith, *Doc*, 6-10.

<sup>46</sup>FA Selection (Senior) Committee Minutes, 5 February 1963, FA.

<sup>47</sup>Interview with Neil Phillips by author, 21 June 2005, Malvern, United Kingdom, notes in the possession of the author.

<sup>48</sup>Tony Mason, "When the World Cup Kicked Off," *BBC History Magazine*, June 2006, pp. 32-33.

<sup>49</sup>Ruy Castro, *Garrincha: The Triumph and Tragedy of Brazil's Forgotten Footballing Hero* (London: Yellow Jersey Press, 2004), 94.

<sup>50</sup>Smith, *Doc*, 23.

<sup>51</sup>FA Council Minutes, 9 January 1984, FA.

<sup>52</sup>FA Executive Committee Minutes, 5 October 1977, FA.

<sup>53</sup>FA Council Minutes, 21 May 1987, FA.

<sup>54</sup>Interview with Alan Hodson by author, 31 August 2005, Lilleshall, United Kingdom, notes in the possession of the author.

<sup>55</sup>West Bromwich Albion FC Minutes, 1895-1920, West Bromwich Albion Football Club, West Bromwich, United Kingdom.

<sup>56</sup>Ivan Waddington and Martin Roderick, *Managing Injuries in Professional Football: A Study of the Roles of the Club Doctor and Physiotherapist* (Leicester, U.K.: Centre for Research into Sport and Society, 1999), 56.

<sup>57</sup>*FourFourTwo*, May 2001, p. 9.

<sup>58</sup>*Guardian* (Sport) (London), 19 February 2005, p. 19; *Daily Telegraph* (London), 22 February 2005.

<sup>59</sup>For a critical examination of medical appointments in football clubs see I. Waddington, M. Roderick, and R. Naik, "Methods of Appointment and Qualifications of Club Doctors and Physiotherapists in English Professional Football: Some Problems and Issues," *British Journal of Sports Medicine* 35 (2001): 48.

<sup>60</sup>*BASEM Today*, winter 2006, p. 19.

<sup>61</sup>*Ibid.*, p. 17.

<sup>62</sup>*Guardian* (London), 10 September 2002.

<sup>63</sup>Roberta Park, "Athletes and Their Training in Britain and America, 1800-1914" in *Sport and Exercise Science: Essays in the History of Sports Medicine*, eds. Jack Berryman and Roberta Park (Chicago: University of Illinois, 1992), 88.

<sup>64</sup>Dave Day, "Psychology and the 'Bath Attendant' Coach," unpublished paper, 2006, pp. 12-13, in possession of author.

<sup>65</sup>Jean Barclay, *In Good Hands: The History of the Chartered Society of Physiotherapy 1894-1994* (Oxford: Butterworth-Heinemann, 1994), 28, 8-9.

<sup>66</sup>Ian Nannestad, "No Ball Practice! Training Methods in the Period to 1914," *Soccer History* 13 (2005-2006): 6.

<sup>67</sup>Paul Joannou, *The Black 'n' White Alphabet* (Leicester, U.K.: Polar, 1996), 495.

<sup>68</sup>*Birmingham Gazette and Express*, 12 August 1910, p. 8.

<sup>69</sup>*Albion News*, 26 August 1922, p. 2.

<sup>70</sup>Barclay, *In Good Hands*, 50-69.

<sup>71</sup>*Sports Budget*, 15 January 1938, p. 14.

<sup>72</sup>Roy Peskett, ed., *Tom Whittaker's Arsenal Story* (London: The Sportsmans Book Club, 1958), 44, 194-200.

<sup>73</sup>Gary James, *Football with a Smile: The Authorised Biography of Joe Mercer* (Leicester, U.K.: ACL and Polar Publishing, 1993), 119. These comments are perhaps surprising not only in light of Arsenal's previous and future reputation regarding the quality of its trainers but because Tom Whittaker was then Arsenal's manager.

<sup>74</sup>FA Minutes, Report on the Regional Conferences of Club Doctors, May 1962, FA.

<sup>75</sup>Barclay, *In Good Hands*, 141-143.

<sup>76</sup>Hodson interview.

<sup>77</sup>*FA News*, August 1956, p. 6.

<sup>78</sup>Trainers' course first took place at Carnegie College in Leeds before moving to the National Sports Centre in Lilleshall, Shropshire, in the 1950s.

<sup>79</sup>FA Minutes, Report on the Regional Conferences of Club Doctors, May 1962, FA.

<sup>80</sup>FA Minutes, Coaching Report 1957-1958, FA.

<sup>81</sup>David Tossell, *Bertie Mee: Arsenal's Officer and Gentleman* (London: Mainstream, 2005), chap. 2.

<sup>82</sup>Phillips interview.

<sup>83</sup>Telephone interview with Laurie Brown by author, 7 June 2005, notes in possession of the author.

<sup>84</sup>FA Medical Committee Minutes, 9 December 1986, FA.

<sup>85</sup>Robin Harland, Belfast, U.K., to Neil Carter, 17 February 2006, in possession of author.

<sup>86</sup>*Football News*, March 1976, p. 10.

<sup>87</sup>Hodson interview.

<sup>88</sup>*West Bromwich Free Press*, 1 January 1909, p. 4; *Chronicle for West Bromwich and Oldbury*, 1 January 1909, p. 6.

<sup>89</sup>*First Aid*, February 1906, p. 115.

<sup>90</sup>R. Verdonk, "Alternative Treatments of Meniscal Injuries," *Journal of Bone and Joint Surgery*, 79-B (1997): 866.

<sup>91</sup>Peskett, *Tom Whittaker's*, 37-41.

<sup>92</sup>*Athletic News*, 16 September 1912.

<sup>93</sup>*Albion News*, 11 December 1937, p. 139.

<sup>94</sup>M. Randal Roberts, "A Footballers' Hospital," *Windsor Magazine*, March 1899, pp. 511-516.

<sup>95</sup>Anne Hardy, *Health and Medicine in Britain since 1860* (London: Palgrave, 2001), 16.

<sup>96</sup>*Athletic News*, 18 August 1913.

<sup>97</sup>John Harding, *Living to Play: From Soccer Slaves to Socceratti—A Social History of the Professionals* (London: Robson Books, 2003), pp. 108-110; Ian Nannestad, "John Allison and His Football Hospital," *Soccer History* 9 (2004): 42-43.

<sup>98</sup>*Aston Villa News and Record*, 8 August 1914, pp. 661-669.

<sup>99</sup>*Sports Budget*, 15 January 1938, pp. 14-15; 5 February 1938, pp. 14-15; 30 April 1938, p. 14.

<sup>100</sup>*Sports Budget*, 31 December 1938, pp. 14-15.

<sup>101</sup>Andrew Ward and Ian Alister, *Barnsley: A Study in Football 1953-59* (Barton-under-Needwood, U.K.: Crowberry, 1981), 59.

<sup>102</sup>Ken Rogers, ed., *Dixie Dean Uncut—The Lost Interview* (Liverpool, U.K.: Trinity Mirror Sport Media, 2005), 19.

<sup>103</sup>The Football League did not permit substitutions until 1965.

<sup>104</sup>Smith, *Doc*, 36.

<sup>105</sup>Stephen F. Kelly, *Bill Shankly: It's Much More Important Than That: A Biography* (London: Virgin, 1996), 157-158, 228-230.

<sup>106</sup>*Times* (London), 9 November 1971, p. 2.

<sup>107</sup>Adams interview. Hartford's condition did not have a detrimental effect on his career, however. He played in a total of 731 Football League games between 1967 and 1990 for nine clubs. In 1997, this put him nineteenth on the all-time list for league appearances.

<sup>108</sup>*Guardian* (Sport) (London), 29 April 2000. Van Nistelrooy broke down in training a few days later but following a successful knee operation was signed by United in 2001.

<sup>109</sup>*Times* (London), 16 December 2002, p. 4; *Guardian* (London), 20 August 2002; *Guardian* (Sport) (London), 13 October 2005, p. 8.

<sup>110</sup>Carter, *Football Manager*, 74.

<sup>111</sup>Ted Farmer, *The Heartbreak Game* (Wolverhampton, U.K.: Hillburgh, 1987), 53-54.

<sup>112</sup>*Sunday Correspondent* (London), 11 March 1990, p. 58. Shankly was the manager of Liverpool from 1959 to 1974.

<sup>113</sup>*Guardian* (Weekend) (London), 12 February 2000, p. 43.

<sup>114</sup>Adams interview.

<sup>115</sup>Middlesbrough Football Club Minutes, 19 April 1900, MFC.

<sup>116</sup>Adams interview.