Articles

Sport (and Exercise) Medicine in Britain: Healthy Citizens and Abnormal Athletes

VANESSA HEGGIE

Abstract. Historians have not so far considered Britain as a pioneer in sports medicine, instead arguing that an amateur ethos retarded developments in science and medicine. This article demonstrates that Britain institutionalized and formally recognized sport (and exercise) medicine in advance of most other nations. Further, its sports medicine grew from a focus on elite, competitive and professional sports and not—as had been the case for other countries—on school sports and exercise for health. An interest in the amateur athlete appeared only after 1970, the result of increased government intervention in national fitness and new theories in public health.

Keywords. exercise, sports medicine, sport, public health, specialization

Résumé. Les historiens n'ont pas jusqu'ici considéré la Grande-Bretagne au nombre des « pionniers de la médecine sportive, estimant plutôt que la domination de l'idéal du sport amateur en a retardé le développement ». Cet article démontre que la Grande-Bretagne a institutionnalisé et reconnu officiellement la médecine sportive (et de l'exercice), bien avant la plupart des autres nations. Contrairement à plusieurs autres pays, sa médecine du sport s'est développée centrée sur des sports d'élite et compétitifs plutôt que sur l'éducation physique à l'école et l'exercice pour la santé. Ce n'est qu'après 1970 qu'un intérêt pour l'athlète amateur s'est véritablement manifesté en Grande-Bretagne, soit après l'intervention gouvernementale en matière de mise en forme et l'application de nouvelles théories en santé publique.

Mots-clés. exercice, médecine sportive, sport, santé publique, spécialisation

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Vanessa Heggie, Department of History and Philosophy of Science, University of Cambridge.

INTRODUCTION

Three distinct phases in the development of British sports medicine are visible in the 20th century; a period of concern with fitness and healthy normality, a period where the supernormal athlete was the focus of attention, and a period of engagement with the "new public health" of the 1970s when sports medicine's remit was extended to the body public. While, internationally, several organizations concerned with the medical side of sports and exercise were created in the first quarter of the 20th century, these were emergent at a time when medical practice and medical theory still treated the athlete as a healthy "normal" person. As such, these organizations engaged heavily with issues of national fitness, physical culture, and school physical education. However, the institutionalization of British sports medicine as an expert activity, backed up by journals, academic support, and membership organizations, took place instead at a time when the athlete was increasingly being described as a biomedically abnormal human being. The research interests of early sports medicine organizations in Britain and, even more markedly, the proportions of government-sourced research sponsorship given to sports medicine and physiology clearly show a focus on the elite national and international level athlete. This is not to suggest that national fitness, school sports, and physical culture played no role in the creation of British sports medicine. Rather, such interests created impetus, funding, and meeting spaces for the scientists and doctors who went on to argue that the athlete was not like the rest of us.

An interest in the elite athletic body might seem surprising given the centrality of "amateurism" to British sporting identities (and indeed, the contribution of the gentlemanly amateur ideal to broader notions of "Britishness").[1] This is not the appropriate space to discuss at length the terminology of amateurism in sport, where "amateur" can be a mindset or a legal category, a term of abuse, or a high ideal. What is more pressing here is to recognize the dangers in any slippage between the use of these terms in sport and their use in medicine. In its simplest reading, the amateur is the unpaid participant, while the professional takes a wage; but this can be misleading in sports medicine where the bulk of practitioners throughout the 20th century have been unpaid, yet in terms of their vocational identity have been thoroughly professional, qualified, self-identifying specialists within medicine, if not specifically "sports medics." Further, "amateur" has inconsistent meanings between sports, between competitions, and from one year to another. Here a more consistent divide is drawn instead between community or lay sports—those practised primarily for leisure, enjoyment, education, and health—and elite sports, which should be read to mean the top level

performers, whether paid or unpaid. ("Amateur" and "professional" will be reserved to refer to unpaid and waged players).

For those practitioners who remember the early years of the British Association of Sport and Exercise Medicine (f.1952, hence BAS(E)M) it is certainly recalled as a decidedly "unprofessional" affair, with limited funds and little external support.[2] Until well into the second half of the 20th century British sports doctors often treated athletes on a voluntary basis, even in the richest and most professionalized sports. But such observations and recollections should not be read to imply that the individual practitioners were themselves amateur doctors; they were amateurs in the organization and running of professional societies; they were amateurs in the editing and management of new journals; they were unpaid volunteers regularly working in unstructured jobs for sports governing bodies; but they were nonetheless qualified medical professionals who deliberately sought out the "latest thinking" in sports medicine, wrote seminal text books, and undertook world-leading research projects. A similar point can be made for many of the other allied professions that contributed to the construction of British sports medicine in the 20th century; physiotherapists, masseurs, surgeons, physiologists, nutritionalists, even coaches and trainers.

This article will discuss two shifts in biomedical attitudes to the athletic body, and therefore two changes to the definition and practice of sports medicine. In the first half of the 20th century, the healthy normality of athletic activity was replaced by a physiologically unique and adapted sporting body. It was in this later context that the major institutions of British sports medicine, the BAS(E)M, the Institute of Sports Medicine, and the Medical Committee of the British Olympic Association were founded (significant funding also came from the Research and Statistics Committee of the Sports Council). These organizations were forced to reconfigure and reconsider their remit of expertise after 1970, due to a resurgent government interest in national fitness, and an increasing consumer demand for sports medicine. Consequently sports medicine expanded to re-absorb the healthy (and unhealthy) normal body, while maintaining its expertise over the abnormal, elite athletic body.

THE NORMAL, HEALTHY ATHLETE

Very little has been written on British sports medicine, and the early works tended to concentrate on the period from 1850-1920.[3] Generally these texts tell one of two mutually supportive stories; on the one hand there is a fairly critical account of the relative absence of (orthodox, professional) medical intervention in sports, explained as due to the disinterest of doctors or active resistance from sportsmen against medical intervention or "scientific" training.[4] Alternatively, British doctors and

physiologists are represented as deeply skeptical about the value of sport and exercise, seeking not to support but rather to limit and regulate vigorous exercise, believing it dangerous to the human frame.[5]

Neither account adequately represents the relationship between medical practice (and theory) and British sport between 1850 and 1920. The suggestion of "absence" due to active resistance on the part of the athlete is particularly unsustainable when we look at the commercial side of sports medicine (such as the content of training manuals or the provision of specialist care); by 1900 Manchester had an institution known as the "footballer's hospital" because of the high number of such sportsmen treated there.[6] Indeed, the pattern of medical provision for sporting events and sports organizations seems to suggest that this has been most commonly arranged at the instigation of the sports authorities or athletes, rather than being the deliberate extension of medical power.[7]

Likewise, the skeptical British medic is hard to locate in the primary sources. Historians regularly discuss the "Athlete's Heart," a disease or pathological condition thought at times to be caused by vigorous exercise.[8] This was a genuine fear for some physicians in the mid-19th century and provoked a discussion about whether feats of exertion might undermine health.[9] But as I have shown elsewhere, by 1880 mainstream medical and cardiological thought saw vigorous, manly exercise as entirely appropriate for vigorous, manly men.[10] One of the most influential Victorian texts on exercise and health was Dr. Morgan's *University Oars* (1873), an empirical contradiction of the thesis that university rowing shortened lives.[11]

University rowing was clearly an upper-class (or, by 1900, middle- and upper-class) amateur sport, and would provoke different biomedical fears to those aroused by working-class sports, particularly the working-class *professional* sport of Association Football. Roberta J. Park cites several editorials in the *British Medical Journal* and the *Lancet* that are critical of rough play in football, reading them as critiques of working-class manhood, of violence and over-competitiveness "spoiling" the game.[12] But these editorials also tell other stories that are not critical of sport and exercise *per se*. For example, in 1883 the *British Medical Journal* discussed the deaths of a young player and a referee, killed apparently by the vigor of the game. Importantly, the Editor's conclusion was not that the British population should play *less* sport but *more*: "If the game were followed every afternoon, the evil would be lessened, or would cease."[13] It is the evils of urban, industrialized living—where young men are so degenerated that they can no longer take part safely in a perfectly normal, healthy game of football—that is being critiqued here, not vigorous exercise itself.

When one assumes that Victorian/Edwardian doctors disliked or disapproved of sports, it seems unsurprising that no sports medicine organ-

ization or specialty was formed, but in fact they were relatively well disposed towards exercise and so a better explanation has to be found. Cronin suggests that this is because the "worlds of sport and medicine [were] separate," but the reverse seems to be the case—neither "sport" nor "medicine" were closed socio-cultural worlds that could be discretely identified and embraced or avoided.[14] There was no sports medicine in 1880, because in 1880 it was nonsense to suggest that sports medicine significantly differed from any other sort of medicine. In 1880 a footballer's broken leg was not qualitatively different to a miner or banker's broken leg and his treatment would be dictated by other socio-cultural factors—his location, his ability to pay, etc. Athletes only need specialized advice on their diet if one conceptualizes them as being different to any other highly active healthy human beings. This article argues that around 1900 the ideal athlete and the ideal "normal" healthy adult were almost interchangeable medical categories, and as such, no specialist treatment or advice was necessary.

Consequently, the advice given in training manuals and in medical columns in the sporting press around 1900 mirrored the advice given by doctors more generally; moderate exercise, a "rational" and "scientific" diet, fresh air, and adequate sleep. The only way one could significantly improve one's sporting performance was through practice, and through the careful, scientific study of the individual movements used in various sporting activities. Many training manuals published around 1900 make use both of the pioneering chronophotography of Étienne-Jules Marey and Eadweard Muybridge, and of concepts of efficiency and the scientific management of bodily motion.[15] (The practice of creating a superhuman physique through body building was generally dismissed as unhealthy and aesthetically unpleasing, but even in this genre, medical advice reflects general health advice of the period).[16] Instead of two separate worlds there was continuity; the medical interventions and support most athletes got was probably exactly the same sort of intervention and support they got (or more often, did not get) in any other area of life.

The obvious exception to this rule was the professional footballer, who as a working-class man could find himself thrust into a medical world to which none of his peers had access. By the 1880s several clubs engaged a doctor for their players (more than was provided by many other employers) and accounts in sporting papers around 1900 discuss players sent to "London experts" for operations. By the interwar period the medical facilities at some professional clubs outstripped those available in some cottage hospitals.[17] This close attention paid to the physical fragility of the footballer, and the high economic value given to the footballer's health, may sit uneasily with sporting rhetoric about robust manliness and working-class grit.

Generally it was the "scientific" credentials of a diet, or other interventions, which were promoted in training manuals, articles and adverts aimed at the athlete from 1880. While it is difficult to gauge how much of this advice was followed, clearly the appeal of medical science was sufficient to make it a profitable advertising ploy for everything from muscle embrocations to Cadbury's cocoa. Several training manuals were written by doctors, while others had chapters on diet and health written by doctors, and they appealed to a relatively new audience of middle-class (and upper working-class) amateur athletes—those who were both literate and able to afford a book that cost a couple of shillings. Consequently *some* of the critique of the "unscientific" habits of earlier trainers and coaches was explicitly a way of distancing new middle-class activity from working-class professional sport. But it should come as no surprise if the ideal, healthy, British citizen in 1900 was middle-class and male, and therefore no surprise that the idealized athlete was too.

Specialist interventions therefore tended to be limited to the bodies of those who were not middle-class adult males, or to the most extreme forms of exercise. Participants in the 1908 marathon at the first British Olympic Games were screened for occult heart disease (1908 also saw the first bans on "dope," although without any means to test for dope it is unclear how this rule was to be policed); by 1912 this screening had been extended to the long distance cycling events.[18] The possible health risks of cross-country running by schoolboys was discussed and robustly dismissed by the Medical Officers of Health for Schools Association in 1909, in response to a letter to the *Times* by a footballer and some doctors which suggested that races over a mile could be dangerous.[19] The exclusion of women from competitive sport on medical grounds has been discussed elsewhere.[20]

Meanwhile, in Germany, sports medicine became formally organized, with the first use of the phrase "sports doctor" in 1904 and the first meeting of sports physicians in 1912, leading to the first sports medicine/science organization, the *Reichskomitee für die wissenschaftliche Erforschung des Sportes und der Leibesübungen* (Imperial Committee for Scientific Research of Sports and Physical Education).[21] This German activity was an offshoot of research interest in the physiology of work suggesting that sport was not an exceptional but rather a representative activity—physiologists did not recognize sport and work as "separate worlds." Consequently this German story does not disrupt the notion that the athlete was normal, as the doctors involved do not appear to have considered themselves as specialists dealing with abnormal or distinct patients.

A more profound point was that the physiology of sportive functioning could not be divorced from human physiology as a whole.... It is senseless, said

Schnell [a leading German sports doctor], to separate sport-induced bodily changes from the same kinds of changes resulting from occupational stress.[22]

By the late 1920s there were several national organizations in Europe dedicated to the study of medicine and sport, physical culture, or exercise, and in 1928 the first international organization—the *Association Internationale Médico-Sportive* was formed. This organization changed its name to the *Fédération Internationale de Médecine Sportive* (FIMS) in 1934.[23] Between 1928 and the founding of BAS(E)M in 1952, the understanding of the athletic body, and therefore of sports medicine, shifted. Instead of being the avatar of healthy normality or a representative of manual laborers, the athlete was reconstructed and reinvented as a physiologically distinct human type, and, crucially, as a distinct patient group. Consequently the sports medicine organizations which formed after the first flurry of the 1920s increasingly focused their attention away from issues of national fitness and physical culture, and towards the creation and understanding of exceptional athletic performances.

THE ELITE, ABNORMAL ATHLETE

This shift was not something that was always welcomed, by either medical practitioners or those involved with competitive sports, particularly in Britain. Sir Adolphe Abrahams (1883-1967) wrote that the "very cream" of British sporting talent in 1928 were "only well-developed youth[s]," but bemoans in 1933 the "preposterous standard"[24] of the Olympic Games; in 1951 he writes of the "constitutional hypertrophy of the super athlete."[25] Such disquiet was felt internationally too; the League of Nations formed a Commission on Physical Education in 1937 whose report in the following year states that "[t]he aim of physical education should be not to develop 'champions' but to benefit the whole community."[26] Furthermore, "no one should engage in strenuous training and competitive exercises without a medical examination. This precaution is particularly important for adolescents and for individuals over thirty years of age."[27] This Commission appears to have favoured a far more cautious approach to sport than anything emerging from British medicine in the early part of the 20th century. Indeed, across several European nations systems of fairly extensive screening and medical control of sports and physical exercise were introduced, which were never proposed in Britain. Systematic screening for sports in Britain tended to remain an issue only for vulnerable bodies (particularly children), or valuable bodies such as the professional boxer or footballer.

Instead of engaging with screening and medical inspections, British researchers—both physiologists and clinical practitioners—became interested in the experimental and observational study of elite athletes.[28]

That they were doing this in the 1930s and '40s matches the periodization Heiss uses to describe German sports medicine—where the years 1912-25 are a period when doctors just applied general medical theories to athletes, and then the years 1925-55 are those where research was first done into the *specifics* of athletic performance.[29] Internationally, although FIMS was initially formed with no British members, the organization's first president, Professor Buytendijk (1887-1974), had spent some time training with the leading British exercise physiologist, A. V. Hill (1886-1977).[30] When Buytendijk arranged for physiological experimentation to take place at the 1928 Olympic Games in Amsterdam, Hill and two other British physiologists participated in the research project.[31] Similar tests were carried out by Abrahams on possible candidates for the British Olympic team.[32]

Alongside this increased biomedical interest in the athlete as a distinct object, the interwar years were also particularly important for the formation of organizations concerned with national fitness, physical culture, and school sports. In Britain, many of these were relatively fleeting, with their activity halted due to the pressures of war. Nonetheless they provided important meeting grounds for doctors, scientists, and physical educationalists with particular interests in exercise physiology and sports medicine (Berryman has highlighted the role of physical educationalists in the founding of the American College of Sports Medicine).[33] The National Fitness Campaign was probably the most prominent of the many health campaigns of the 1930s, but ran for just two years from 1937 to 1939.[34] Despite being short-lived it created two medical subcommittees to consider specifically the effects of vigorous exercise on women (they were unable to find any witnesses willing to say that it was harmful) and to try to create a working definition of "fitness."[35] Government money also supported the Medical Research Council, which was asked to provide advice on physical exercise in 1938, forming a "Physical Exercise Research Committee" which folded at the start of World War II.[36] The broader cultural and political ramifications of these national fitness movements are well described by I. Zweiniger-Bargielowska, and they describe a form of healthy normality.[37] This model begins to stand in stark contrast to the hypertrophied supernormal bodies being examined at Olympic Games. As the League of Nations quote above suggests, there was a difference by the start of World War II between community exercise and competitive, champion-building exercise.

One final reason for the changed interpretation of the athletic body is more pragmatic—the availability of athletic bodies for autopsy. The participants of the boom in endurance sports, particularly long-distance cycling and walking/running in the 1880s and '90s, were dying from natural causes in the 1930s and '40s. In one case we can specifically see the birth of the physiologically discrete athletic body as a concept for a

British doctor; A. Abrahams had maintained that the athletic heart was not hypertrophied by exercise; in 1946 he reversed his opinion after autopsying a long-distance cyclist who had died at the age of 78 with an apparently healthy, but "considerably hypertrophied" heart.[38] Therefore, although the enlarged heart was a pathological symptom in most patients, in the athlete it could be a physiological adaptation. Cardiological diagnosis for the athlete had to rely on different standards and interpretations than the diagnosis for the "normal" person. Similar claims were made for other organs and bodily systems.[39]

Whether these athletic bodies were desirable or normal was debatable and critiques of the highly developed bodies of athletes, especially female athletes, continued throughout the century. But it was in this context, where the athlete was clearly different even if it was not obvious if they were super- or sub-normal, that the first British sports medicine organization was formed. Abrahams, along with (Sir) Arthur Espie Porritt (1900-94), Brigadier Glyn Hughes (c.1892-1973, ex-member of the Medical Committee for the 1948 London Olympiad), Lt. Col. Milne, Mr. A. E. Kendall (c.1900-71, a surgeon), and Dr. W. S. Tegner (q.1932, d.1972, a specialist in Physical Medicine) met on 23 June 1952 to form the British Association of Sport and Medicine, renamed in the 1990s as the British Association of Sport *and Exercise* Medicine.[40] "[T]he Association [was] founded with the aim of making it the authoritative body on every medical aspect of athletics and exercise."[41]

Membership of the BAS(E)M was limited at first to "medical men and women with a qualification registrable in the [UK]" and those nominated by sports governing bodies—scientists could become honorary members.[42] Membership remained under 200 until the early 1960s, and the activity of the BAS(E)M was fairly limited in the first few years of its existence. It did organize seminars and meetings, and the topics discussed at these meetings show a clear interest in professional, elite, or competitive sport, rather than general fitness or school physical education. In the first year (1953-4) talks were given on swimming, "The Doping of Athletes," "Some Medical Aspects of the Everest Expedition," and "The Psychology of the Athlete." Talks in the following year were similarly focused: on the medical aspects of boxing, on athletic injuries, on the heart in athletics. By 1957 there had been at least three papers delivered on the application of biomedicine to the design of training regimes, and one "scientific" regime, interval training, was of course used profitably between 1953-4 by Roger Bannister, who was made the first Honorary Life Member of BAS(E)M in 1954 "in recognition of his athletic achievements."[43]

To broaden the organization's appeal provincial meetings were introduced in 1961; the first, in Loughborough, was on the topic "Are Athletes Different?" Most papers given at this conference seemed to argue that

athletes *were* different, they were physiologically distinct, or suffered from specific injuries and diseases, or were a distinct patient group with specific needs not felt by other patients (including issues such as the necessity of coordinating health care with coaches and team managers).[44] The membership rules of BAS(E)M were relaxed in the same year, so that anyone with a professional healthcare qualification or a serious interest in sport could become a member, but the accounts of the Association's work do not suggest that this significantly changed the focus of BAS(E)M's attention. In fact it may have refocused the attention of other sports medicine professionals: initially membership was refused to Physiotherapists as they could join the Board for the Correlation of Medical Science and Physical Education.[45] When this Board folded, BAS(E)M accepted physiotherapists, who therefore lost an organization interested in physical exercise, and gained one that tended to centralize elite sports.[46]

More sports medicine organizations and institutions appeared rapidly after the founding of BAS(E)M. In 1958 the Ergonomics Research Society "formed an ad hoc group for the study of physiological and psychological problems in sport," which was reinvented as the Fitness and Training Section in 1961; in 1959 the British Olympic Association formed its first Medical Committee; in 1963 the BAS(E)M, British Olympic Association and Physical Education Association collaborated to found the Institute of Sports Medicine, which was intended as an academic body for sports medicine.[47] Funding for sports medicine received a boost with the formation of the Sports Council in 1965, as the Council's Research and Statistics Committee, chaired by Bannister, had the power to award grants for research in sports science and medicine—and collaborated with the MRC to open a research centre at Crystal Palace in 1967.[48] In 1964 the *Bulletin of the British Association of Sport and Medicine* was first published, changing its name to the *British Journal of Sports Medicine* in 1968.

All of these organizations, institutions and publications tended to emphasize the special nature of the athlete—whether that was their biological distinctiveness, the extreme demands made by competitive sports, the necessity of fully understanding the organizational infrastructure of sports and sports governing bodies, or the "psychology" of the athlete as a patient. Further, with the international interest in doping and gender testing in the 1960s, athletes were increasingly being defined by rules of behaviour and participation that distinguished them from the normal population. Chemicals like caffeine and asthma medication were acceptable substances for the normal body to consume, but were considered inappropriate, dangerous, or immoral when taken by the athlete. (And, of course, the rules defining femininity for sport excluded some athletes who were culturally and socially accepted as women).[49]

These discussions and publications do not *necessarily* reflect the reality of sports medicine practice; they do not prove that athletes recognized themselves as different, or that most people's sporting experience was affected by this physiological assumption. That said there is evidence that this viewpoint was beginning to be reflected in the activity and self-identity of sportsmen and women, and their organizations, as early as 1955 when Abrahams suggested that the average (amateur) athlete "regarded himself as a privileged person" when it came to medical treatment.[50] Carter has highlighted evidence that in the 1960s some professional sportsmen sought treatment from rival clubs' medical professionals when they lost faith in their in-house provision.[51] In amateur sports it is clear that at least some athletes were keenly aware of the possibilities of better performance and recovery promised by medical science; in the 1950s a campaign was waged by lay athletes as well as doctors against the Amateur Athletics Association, demanding reforms to the rules on refreshment stations for marathons by citing scientific evidence about the need for re-hydration.[52]

Of course, research continued in the UK on issues related to physical education and leisure sports, but through the 1950s and '60s such work appears distanced from the organizations, institutions, publications, and individuals who used the phrase "sports medicine" in their titles. When Dr. J. G. P. Williams published *Sports Medicine* in 1962, the first British book to use that phrase in its title, he commented on: "the emergence from the general mass of the population of a new type of person—the trained athlete. Whether amateur or professional, he is as different physiologically and psychologically from 'the man in the street' as is the chronic invalid."[53] This division between exercise, fitness, and sports medicine is perhaps most dramatically visible through the grants of the Sports Council. This Council was founded in 1965 on the recommendation of the Wolfenden Committee on Sport (f.1957), whose remit had been to consider the relationship of sport to the wider community, and the majority of its Report considered the social, economic, and cultural significance of sport, with only minimal space given over to the consideration of sports medicine.[54] Yet one of the first grants given out by the Sports Council (nominally the "Advisory Sports Council" until 1972) was a payment of £2,500 towards the British Olympic Association's Mexican Altitude Project, a research project to examine the possible effects of altitude on the most elite of sportsmen—Olympians.[55]

Over the next five years the Sports Council paid out nearly £39,000 in research grants for "Medical/Physiological Research."[56] Of this over £30,500 went either to research for elite or professional sports, or into basic physiological research: the mobile laboratory at Crystal Palace (£2,100), a major study on "Perception of Ball Flight Characteristics" (£8,661), two projects on altitude (total £3,274), an enquiry into the effects

of professional boxing (£2,617), research on the detection of anabolic steroids (£7,053), and an ongoing bursary scheme for the training of exercise physiologists (£6,879).[57] Only three projects deviated from this concentration on the elite athlete or physiology, and that was a £200 grant for a study of fitness in school children, a £2,280 grant for a survey in Newcastle studying how sports injuries were treated (and at first this was limited to injuries reported by Rugby and Football clubs), and then £5,715 into the "Effects of Exercise on Middle Aged Men." This last project, proposed to the Sports Council by Dr. Edholm and to the MRC by Dr. H. E. Lewis of the National Institute for Medical Research, was to study the value of regimented gym-use in preventing and treating coronary heart disease.[58] It gained final ethical clearance from the MRC in 1970, and as such it marks the beginning of a new phase in British sports medicine, where changes in public health policy and a new governmental interest in fitness and exercise required a reconsideration of the athletic body.

THE ATHLETIC BODY PUBLIC

Changes to British sports medicine in the last quarter of the 20th century were driven by two distinct external forces; on the one hand a strong, patient-driven demand for commercialized sports medicine, which could be consumed through specialist insurance and private clinics, and on the other, an altered understanding of the government's role in public health, where the Departments responsible for both Sport and Health reconsidered the relationship between the nation's health and participation in formal sport and exercise. Sports medicine as an area of expert knowledge faced several challenges in this situation, not least the risk that, having demonstrated that the athlete was a unique patient, sports doctors might find themselves excluded from mainstream medicine. As one doctor wrote in the *British Journal of Sports Medicine*, "We must look beyond the physiologically interesting freaks of elite sport to lay claim to the broader field of sports medicine with its general health benefits."[59]

Sports medicine's supporters constantly faced the prejudice within the NHS and political sphere that sports injuries were essentially self-inflicted, and should not be paid for by a national health service.[60] Similarly, it was sometimes argued that sports organizations were wealthy enough to buy their own medical provision, and should not have it subsidized by the tax-payer. These arguments were countered by an appeal to equity; significantly, by directly making the argument that specialist sports medicine should be available to *all* members of the British population regardless of ability to pay, the question of whether sports medicine was a specialty *at all* was begged.

In 1973 the Minister responsible for sport, Eldon Griffiths (b.1925) publicly stated that:

The international sportsman, the first-class football and athletics clubs all have the benefits of modern science and medicine at their behest. That is as it should be. But we need the benefit of this experience and expertise at every level of sporting activity, just as we need the collective wisdom of everyone engaged in sports medicine right down at grass roots level.[61]

Twenty years later this promise seemed unfulfilled, as the Honorary Secretary of the BAS(E)M wrote in characteristically blunt terms:

A government hell-bent on crass materialism and the recreation of Dickensian poverty in the re-emerging underclasses may be embarrassed by examination of health policies featuring reductions in health opportunity…Pride in public provision is eroded by yuppy [sic] health gyms, expensive squash, golf and swimming (and private sports medicine) to ensure their safety from invasion by the common poor…So, what about the "health" aspects of "sport" as we drop "For All"?[62]

Through the 1970s and '80s Britain's sports medicine organizations discussed the need to formalize and regulate sports medicine. Partly this was in order to preserve control over a commercialized enterprise, as without specialist diplomas or qualifications any medical practitioner could call themselves a "sports doctor." Secondly, it also embedded sports medicine into a professionalized medical infrastructure where Chair and Consultant positions within academia and the NHS became possible. Additionally, the value of sport and exercise as treatments became re-emphasized after the 1970s. While sport-as-therapy had long been used for people with physical disabilities (the origin of the Paralympics), epidemiological surveys and studies began to suggest that exercise could be the answer to the most serious diseases of civilization. Work such as that of Edholm and Lewis on their MRC/Sports Council project on exercise and cardiology seemed to demonstrate that exercise was both a therapeutic agent and a form of preventive medicine. This fed into a broader trend in public health medicine where the idea of medical intervention into the lives of healthy people with no disease symptoms (preventive medicine, screening, the contraceptive pill) was increasingly commonplace.[63]

If exercise was going to be prescribed as a drug then surely it should only be prescribed by experts in sports medicine? Experts were not necessarily easy to identify before formal specialty status was awarded in 2005. So, as well as broadening the definition of sports medicine to include preventive treatment for the whole population, those interested in the evolution of British sports medicine policed the boundaries of the specialty. In part this was also a defensive maneuver against a series of external threats in the 1970s and '80s; first when in the 1970s the Sports Council, under the Chairmanship of Bannister and reconstituted as an Executive Body (giving it greater freedom from government control),

pursued a project to establish Sports Injuries Clinics within the NHS.[64] These clinics were not supported by BAS(E)M who opposed the reduction of the multidisciplinary activity of "sports medicine" into a narrowly focused orthopaedic field of "sports injuries."[65] Likewise, the centralization of the hospital as a site for sports medicine did not suit the needs of a BAS(E)M membership who generally practiced in the community.[66]

Simultaneously, private clinics offering multidisciplinary sports medicine were appearing. Health professionals working in these sites were faced with regular uncertainty over their source of income, as sports medicine did not fit models used by insurance companies, and often had to be established as an "exception" to rules about payment.[67] In the early 1980s the British Association for Trauma in Sports (BATS) was formed by BAS(E)M members in response to a perceived need for specialist insurance cover for sportsmen and women, to represent those doctors who wanted to campaign for specialist recognition, and for the particular needs of doctors as opposed to the non-medical members of BAS(E)M.[68] Within the BAS(E)M a fear was also voiced that unregulated sports medicine clinics and insurance schemes were tainting the specialty's reputation; one 1983 text book suggests that "sports medicine [has acquired] an undeserved reputation among some of the medical profession as a specialty that harbours some quacks and charlatans."[69]

BAS(E)M reversed its opinion on specialty status in the 1980s, backing a move towards specialism that they had previously rejected.[70] The earliest expression of this was the rapid increase in the provision of courses and diplomas in sports medicine; in the 1970s and '80s, any doctor interested in sports medicine could take the week-long residential courses offered by BAS(E)M (which qualified him or her for membership of FIMS), or could consider taking the Diploma in Medical Rehabilitation which from 1976 "include[d] sports medicine" as a special subject.[71] By 1989 s/he also had the option of a Diploma in Sports Medicine recognized and accredited by the College of Apothecaries. To qualify to take this examination they had to attend the part-time three-year course organized under BAS(E)M auspices at the London (later, National) Sports Medicine Institute—another BAS(E)M initiative, founded in 1986—or a part-time course entirely run by the BAS(E)M, or a full-time course run by the Institute of Sports Medicine at the London Hospital. The Apothecaries' Diploma fulfilled multiple purposes, including "help[ing] lay people to decide whether someone has attained a reasonable standard" and "identify[ing] appropriately qualified practitioners for insurance purposes."[72]

The provision of qualifications requires the construction of syllabuses and the definition of sports medicine in a formalized manner, and it is around this time that "and Exercise" was added to the title of courses

and books on sports medicine. This extension of medical expertise to the lay body is indicated by the Diploma's syllabus, which includes the topic: "Prescribing exercise to the unathletic." Such codification not only consolidated the doctor's position as central to the specialty, but also continued to favour the general practitioner, or at least generalist interdisciplinary practice. The Apothecaries examination was kept open so that it could be taken by practitioners from the various areas of "orthopaedics, accident and emergency, physiology, musculoskeletal diseases, etc."[73] Nonetheless, doctors still did not have a representative sports medicine organization, as BAS(E)M continued to serve a broader membership. The desire to have a body which could actively campaign for the specific interests of doctors was expressed through the repeated formation of organizations with a doctors-only membership base—BATS was perhaps the first, with the most recent, the United Kingdom Association of Doctors in Sports, founded in 2001.[74]

As long as sports medicine was not recognized as a formal specialism, but rather an "area of interest," it was difficult for holders of the Diploma to shape a medical career based only on the practice of sports medicine; for many it remained an interest alongside a mainstream medical specialty (e.g., orthopaedics or general practice). Through the 1990s the institutions of British sports medicine, both the BAS(E)M and the Institute plus the smaller organizations like BATS, forced the question of formal specialist recognition. When the Conference of Royal Colleges founded the "Intercollegiate Academic Board of Sport and Exercise" in 1998 it appeared that a crucial step had been taken towards gaining specialist status; in fact it took another seven years for sports medicine to be placed on the Specialist Order.[75]

Through the process of creating a syllabus and qualification requirements those active in British sports medicine successfully kept the definition of their specialty open. The concept of sports medicine as a discrete specialty was maintained without having to focus only on the "physiologically interesting freaks." Twenty-first-century British sports medicine has a clear public health remit, useful in the prevention of obesity and diabetes and in the treatment of cardiological and respiratory diseases. At the same time it provides services to the elite bodies of sport, monitoring their drug use, advising on their training regimes, and providing their injury treatment.

CONCLUSIONS

British sports medicine at the beginning of the 21st century is superficially very similar to the sports medicine of the early 20th century, in that it now includes the healthy normal body, the school child, the cardiac patient, and the elite or professional performer in its remit. The difference

of course is that the people undertaking this practice now self-identify as medical specialists, instead of the general practitioner, the school medical officer, or the cardiologist (or rather, *as well as* these specialties). Sport and Exercise Medicine is a protected specialty in its own right, and through the 20th century it has established a monopoly of practice, journals, institutions, organizations, funding streams, academic recognition, etc. But the formal Sport and Exercise Medicine of the 21st century can disguise its own mid-century origins, where the "and Exercise" part of the specialty was entirely peripheral. The reason that sports medicine became recognized as a distinct medical specialism in Britain was because it managed to make itself relevant to the normal, healthy body while maintaining the assumption that the athletic body was distinct enough to warrant a medical specialism.

I would suggest that there are two obviously different ways in which sports medicine has developed—there is "British style" where a focus on elite and high-performance sport has driven the institutionalization of sports medicine, and where public health and lay sports concerns were added to sports medicine's remit only after 1970. This is a pattern seen in North America—both in the USA and in Canada (although at least in the former, physical educationalists were involved in the founding of the early organization, just as they were in the UK); in Europe the GDR and Russia established sports medicine focused on the international-level competitor.[76] The British system was also specifically recommended in the 1980s as a model for the development of Australian sports medicine.[77]

Alternatively, there is "French style" development, where sports medicine is an extension of public health, and from the start includes school sports and national fitness as a central part of its remit. While organizations dedicated to this sort of sports medicine seem to have appeared earlier than "British style" (i.e., in the 1920s and 1930s rather than the 1950s and 1960s), it does not seem to have supported the recognition of sports medicine as a discrete medical specialty. In France, just as an example, by the early 1980s extensive systems of medical screening for all competitive sports were in place; certification was a legal requirement, with up to 8 million citizens holding a "permit" to engage in competitive sport.[78] This is clearly an intervention larger than anything the British government was making in the early 1980s; and yet until around 1983 the examinations for these permits did not have to be performed by a Sports Doctor—*any* family doctor was considered competent to certify would-be athletes.[79] (Meanwhile, other forms of intervention were absent; while the Amateur Athletics Association dealt with the issue of hydration stations for road races in Britain in the 1960s, until 1980 it was individual riders who were responsible for water provision at the Tour de France, not the organizers.)[80]

Such variation in Europe may become more homogenous with the introduction of a single core curriculum for sports medicine specialists across the European Union.[81] And it is not the case that recognition of the elite body as distinct necessarily leads to specialization—in the USA sports medicine remains a sub-specialty within other related fields, such as orthopaedics or emergency medicine. Nor would I suggest that these are the only two models for sports medicine; certainly a consumer demand for experts and interventions could define sports medicine from without—a situation where patients themselves identify as having "special needs" and act accordingly. Sports medicine as a commercialized and privatized form of health care has been present from at least the late 19th century, and its practices—from adverts for cocoa, through training manuals which included health advice, to the private injury and physiotherapy clinics of the 1980s—have had clear effects on the eventual development of the specialty in the UK (and elsewhere).

What this article has attempted to reveal is a history of sports medicine in Britain that can become hidden within histories of exercise and public health. It is the case that Britain did not participate in the same way or with the same enthusiasm as many other nations during the national fitness booms of the 1920s and '30s, but rather was one of the first nations to conceptualize sports medicine as the exclusive, expert study of the elite sporting body. While this vision of the athlete as ab- or super-normal allowed the institutionalization of sports medicine as a medical specialism (if not yet a specialty), it then had to be reinterpreted and reinvented to allow sports doctors to participate in a second wave of government interest in exercise for health and national fitness. Neither an ingrained national obsession with amateurism, nor the limitations of the NHS, managed to constrain sports medicine, despite its interest in high-performing patient bodies whose injuries and infirmities were sometimes regarded within a socialized healthcare system as "self-inflicted" and not worth tax-payers' support. Whether the "British style" of sports medicine specialization is a model or an anomaly can only be revealed by further national studies.

NOTES

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