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The forgotten workers of capitalist sport: caring for former professional footballers living with neurodegeneration

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ABSTRACT

In 2002, a coroner's court ruled Jeff Astle had died due to an industrial disease. If, as this case and ongoing litigation appears to suggest, the brain health of former footballers is connected to their sporting careers, there are dramatic consequences for the lives of sportspersons upon which the capitalist model of sport was built, and its current profits are maintained. It is within such a context, that we were drawn to explore the experiences of the wives and adult children of former professional footballers. Our ten participants had caring responsibilities for their husband/father who lived with or had died from neurodegeneration. We discovered powerful, emotional and oftentimes quite traumatic accounts of their worlds. Drawing on classic critical sociological accounts of sport and framed by Mills' outlining of private troubles and public issues, we provide empirical glimpses into the outcome of exploitative athletic labour and the lack of institutional support associated with the 'forgotten workers' of professional football. These insights represent the first social scientific accounts of such experiences in this sample. Based on our findings we conclude by arguing that scholars who are committed to doing genuinely critical research on performance sports should keep attending to the capitalist structuring of such social worlds.

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Athletic labour; capitalism, exploitation; dementia; football; neurodegeneration

In 2002, a coroner's court ruled that professional footballer, Jeff Astle, had died due to an 'industrial disease'. Experts suggested that the Alzheimer's which contributed to his death was likely associated with the trauma to his brain incurred over a career heading footballs (Eaton, 2002). In 2014, inspired by evidence of parallel conditions among former American Footballers (Mez et al. 2017), Astle was posthumously diagnosed with Chronic Traumatic Encephalopathy (CTE). And in 2017 the first study identifying CTE in former British professional footballers was published (Ling et al. 2017). Large-scale epidemiological studies have subsequently indicated that professional footballers are at an approximately 3-5 times higher risk of neurodegenerative disease than the wider population (Mackay et al. 2019; Russell et al. 2021; Ueda et al. 2023). These observations align with recent litigation against various sporting governing bodies from former players and their families over the failure in duty of care regarding the management of brain injuries (Castro, 2024).

The specific aetiology of neurodegenerative diseases means it is challenging to make definitive claims about causal links between playing football and individual cases. Lay populations often mistakenly see dementia as a logical consequence of ageing, while expert statements identify multiple modifiable factors which account for a proportion of the aetiology of dementia (e.g. Livingston et al. 2024). However, the weight of biomedical evidence now points towards repeated head impacts being fundamental to the observed relative risk of neurodegeneration within sport populations (e.g. Nowinski et al. 2022). Thus, what appears to distinguish neurodegenerative diseases within sporting populations is the attribution to a quite clear 'social' or occupational cause.

How such ideas about causation are related to the experience of living with neurodegeneration opens up a series of important political, interpersonal and social problems that quite clearly affect the families

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of sportspersons. Such issues combine with changes in partners' personalities and behaviours, heightened aggression and violence in oftentimes quite large and powerful men, the 'hidden labour' of mainly female carers and the fame of former athletes (see Ortiz, 2021; Simonetto, Hannem and Thomson, 2022; Simonetto and Sailorfsky, *forthcoming*; Simonetto and Tucsok, 2023). It is within such a context, that we were drawn to explore the lives of family members who care for former footballers living with neurodegeneration. In doing so, we discovered intimately personal, powerful, emotional and oftentimes quite traumatic accounts of their worlds which provide broad insights into the structure and character of capitalist sport, along with the processes inherent to its sustainability and growth. To provide some useful empirical and theoretical context, we outline certain contributions from the critical sociological analysis of performance-sport as an institution built on the cultural logics of capitalism.

The trade of capitalist sport and public issues

Mills' (1959) discussion of personal troubles and public issues is useful for considering the connections between individual problems people may experience within their everyday life (personal troubles) and broader societal issues that affect groups of people beyond the realms of individual agency (public issues). The central point being that many personal troubles can be best understood by considering the broader social structures which influence the conditions leading to ostensibly 'individual' problems. And building from such an understanding, Mills argues, that it is a sociologist's task to identify the structural and historical roots of personal troubles and then formulate foundational political interventions.

The personal troubles faced by athletes – such as pressures to play injured, expectations to put their 'body on the line', coercion into doping, abusive social relations, financial insecurity and inhumane training regimes – have long been understood by critical scholars as public issues tied to the structure and culture of performance sport in capitalist societies. This was a central thread within early socio-economic studies of sport which detailed how capitalism was central to the structuring of the Western world's most popular 'games'. Classic contributions, such as Jean-Marie Brohm's *Sport: A Prison of Measured time* (Brohm 1978), Paul Hoch's *Rip Off the Big Game* (Hoch 1972) and Bero Rigauer's *Sport und Arbeit* (Rigauer 1969/1981), all broadly situated sport, not as some playful, arcane, or otherwise separate social space for human expression, creativity and celebration, but as an institution of capitalist, and potentially socialist, societies and state apparatus. Rigauer (1969/1981) explores, quite literally, how sport becomes a form of work, with exploitative capitalist class relations dictating rationalised and repetitive training and creating a de-humanised and alienating work experience.

Similarly, Brohm captures the triple role of performance-sport, wherein athletes are made to compete and 'win at almost all costs', and, following Althusser, he suggests that such sports act as a feature of the ideological state apparatus by;

[firstly] reproducing bourgeois social relations such as selection, hierarchy, subservience, obedience, etc.; secondly, it spreads an organisational ideology specific to the institution of sport, involving competition, record and outputs; thirdly it transmits on a huge scale the general themes of ruling bourgeois ideology like the myth of superman, individualism, social achievement, success and efficiency, etc. (Brohm 1978, 77).

'Sport' is then shaped by, and in turn contributes to sustaining and naturalising, a capitalistic framing of society. And, importantly, the professionalised and performance-orientated version of sport which sits at the core of this process has taken hold as *the* global sporting model.

We appreciate that some may consider our review of classic contributions to the political economic analysis of sport to be somewhat 'crude'. However, while stronger elements of economic determinism may be questioned, and/or there may be disagreement over the desirability or inevitability of the system, few would contest that societies like the UK are capitalist, and that this sets the broad sociological, economic and existential context in which professional athletes sell their labour to people who own the means of production (see also, Kalman-Lamb 2019; Ventresca and King 2023). And this certainly resonates with the sample under question in our work.

Springing from these early scholarly roots, attention was guided towards the athletes who formed the 'means of production' for such systems. In this regard, scholarship focusing on risk, pain and

injury in sport flourished. Classic contributions from the likes of Hughes and Coakley (1991), Messner (1990), Nixon (1992) and Young (1993) showed how routinised physical damage was a normalised and often valorised ‘part of the game’ in various sports. While clearly cognisant of the debt their critical analysis owed to neo-Marxists approaches, these works drew respectively on symbolic interactionist theory, masculinity theory, social network analysis and victimology studies. But importantly, the political economic critique of earlier work became either implicit or explicit *context*, rather than as dedicated theoretical and political approaches.

Later works further developed these contributions on pain and injury and continued the shift away from, explicitly at least, accounting for the place of capitalism as a foundational component of critical sociological or political studies of sport. Take, for example, Safai’s (2003) research showing how the ‘cultures of risk’ that Nixon highlighted, exist in dialogue with a ‘culture of precaution’. Here, student athletes negotiate, and sought balance between, ideologies prioritising performance (over health) and their motivations to protect their well-being (see also such negotiation in cyclists Hardwicke, Hurst and Matthews, 2025 and boxers Matthews, 2021). Theberge’s (1997) work extended the *malestream* focus of risk, pain and injury research, which highlighted how women in certain sports challenged traditional patterns of patriarchy (see also, Channon and Matthews, 2015; Hardwicke, et al. 2025). Similarly, Pike’s (2005) focused on how sportswomen largely accepted the dominant model of performance-orientated sport and sought out ‘non-orthodox’ health care to help ‘patch themselves up’, as they continued training and competing with various injuries and health issues (see also, Forbes, et al. 2024).

It is possible to read such works as extensions to early political economic critiques of sport. For example, Safai describes the tension between developing physical prowess and performance, and the parallel process of producing bodily damage and disability. She tells us that, “as the body is built up to move through the competitive hierarchies of modern sport, [it] is increasingly worn down – in essence, an athletic career also becomes a ‘pain career’” (2003, 129). This career in pain is, then, the empirical evidence upon which Brohm, Hoch, Rigauer et al.’s, critical reading of sport as capitalist work is manifest. And the outcomes of this process result in examples of the kind of personal troubles Mills pointed towards in social life more broadly (1959).

Notwithstanding the need to account for people’s agency and negotiations of social structural forces, a clear analytical thread through many critical social scientific studies is that the personal troubles well-documented in performance sport are inherent to its capitalist structuring and organisation. This means that problems in and of capitalist sport can be understood as public issues. And various scholars have done this by exploring athlete bodily harm through one of the most successful enterprises in the business world of sport: association football or soccer.

The damaging trade of football

Football occupies a central place within the development of capitalist sport. The codification of the rules in 1863 can be traced to the rivalry between Eton and Rugby Schools, but variants were undoubtedly played prior to this across the UK and indeed the world. Football diffused *via* trade routes connected to the informal British Empire (Perkin, 1989) and became the world’s most popular sport. While always open to professionals, the entrenchment of British class relations manifest through the veneration of amateurism which led to a series of particularly restrictive employment regulations. The ‘retain and transfer system’, repealed in 1961, restricted player’s freedom to change employer and earning potential.

The launch of the English Premier League (EPL) in 1992 coincided with the growth of satellite and subscription television and was a pivotal point in the process of commercialising the sport. In 1991/92 the average annual earnings of footballers in the top division were £59,904 compared to a UK average of £17,680 (Miller and Harris, 2011), while today the highest earning footballers receive up to £400,000 *per week*. The international appeal of the EPL, the UK’s relatively liberal laws regarding the ownership of capital, and the success of EPL clubs in European competitions mean that in just 60 years it has changed from a game rooted in working class communities to an archetype of global capitalism.

In this globalised, highly competitive and labour-intensive industry, paid workers face a short, although for a *small percentage* highly lucrative, career that invariably takes a significant physical toll

on their bodies (Roderick, 2006a, 2006b). Specifically, football ‘players’, but we find ‘workers’ to be a more accurate term, face a high prevalence of injury (López-Valenciano et al. 2020), and the majority cite injuries as the reason for retirement (Koch et al. 2021). Hawkins and Fuller (1999) calculated that the occupational injury rates of professional footballers were 2000 times greater than the national average. Post-retirement, former football workers are 2 to 3 times more likely to experience osteoarthritis of the knee (Fernandes et al. 2018) and, as evidenced in our previous discussion, an inflated incidence of neurodegeneration.

We appreciate that it is tempting to point to the money that top football players now earn as in some way justifying the damage that is done to their bodies. And we certainly accept that many contemporary football workers do make considerably more money than when Roderick conducted his research over two decades ago (Roderick, 2006a, 2006b). It is, however, important to understand three points. By calling this an ‘industrial disease’ there is an explicit charge that the industry is to blame, or could be modified to reduce the risk. Secondly, player rewards are unequal across time and levels of play and it would be impossible to discern an objective measure of an appropriate risk:reward ratio. Thirdly, there is no evidence that, simply by taking part, players consent is both informed and freely given. Indeed, the dominance of individual sports leagues means that there are no alternative ways in which footballers can pursue this ‘trade’.

Roderick (2006a, 2006b) suggests various reasons why footballers forsake their bodies and play hurt. Here, there is a broad alignment with the classic literature on sport, pain and injury discussed previously, wherein an intertwining of their place in prevailing codes about how ‘real athletes’ engage in sport (Hughes and Coakley, 1991), ideas drawn from ‘traditional’, stoic, renditions of masculinity (Messner, 1990), the importance of social networks (Nixon, 1992), and financial remuneration and working conditions (Young, 1993), all serve to normalise a damaging disregard for bodily integrity and sovereignty.

Given the preceding comments, we contend that: a) the Marxist and neo-Marxist ‘spirit’ of the early critical sociological accounts of sport, while less commonly a full-throated theoretical ‘driver’ in recent work, continues to hold much, and perhaps more, relevance for understanding the contemporary world of professional, performance-orientated sport. And b) much of the work in the sociology of pain and injury in sport builds, in often implicit ways, upon such a focus. From this research, it seems quite apparent that pain, injury, and the post-retirement disabling consequences experienced by players, are features of the athletic labour which many, perhaps all, capitalist models of sport are sustained by and in turn sustain. While professional football has always occupied a central place in this process, what has changed dramatically over the last decade or so (and what becomes increasingly manifest as life expectancy has risen) is the awareness that these disabling consequences include brain as well as physical function.

Consequently, our research design did not focus on developing an economic analysis that might shine light on capitalist systems in terms of the flow of profit, finance and exploitation of one group by another, for we believe this to be uncontentious among critical sport scholars. Rather, we sought out the experiences of family members who cared for former footballers as a means of better understanding the scope of public issues embedded in capitalist sport. It is by doing research with such people, and their families, that we can gain some further insights into the long-term material, social and personal consequences of athletic labour. In that respect, we follow one part of Murphy and Waddington’s (2007) call, in this journal, for a focus on ‘risk transfer’ (a term they draw out from Nixon’s 2004 work). That is, a focus on revealing the ways in which social relations connected to the network of people around athletes shifts some of that risk associated with the bodily damage involved in professional sports.

In what follows we develop the literature on pain and injury by drawing on Mills’ (1959) discussion of personal troubles and public issues, to highlight the family carers’ experiences which offer empirical insights into the social problem of neurodegeneration in former professional athletes who used to be central to the capitalist trade of football. We frame our methodological discussions around how we *approached* the project, developed empirical *contact* and analytically *grasped* something of our participants experience’s (for more details please see Matthews, 2025a).

Approaching

The last author, Chris, who led our work, has been involved in researching a sport that gave him regular damage to the brain. He has experienced the reality of chronic headaches, impaired vision and judgment, increases in aggression, decreases in his ability to teach, and the erosion of short- and long-term memory, that come from taking regular blows to the head. This has left him feeling a moral duty to work in a direction that tackles the problems associated with sport-acquired brain injuries. In a more abstract sense, he was drawn to research this area following his personal and political motivations to deliver social science which seeks to reduce avoidable suffering and/or enhance flourishing. This, he argues, following Andrew Sayer, provides an ethical and moral foundation upon which meaningful and impactful research ‘that matters to people’ can be produced (Matthews, 2024; Sayer, 2012). Such an axiological position guided the development of our research with community partners and led us to seek various elements of stakeholder involvement. This began with a public engagement symposium (see Matthews et al. 2023, for a proceedings paper), out of which a research steering group was formed.¹ Over the course of a year this group worked with Chris to shape research designs and funding applications (this particular part of our work was supported by the *Foundation for the Sociology of Health and Illness*).

We tentatively approached the project using foreshadowing theoretical tools from a broadly social constructionist position. This, for Chris, at least, meant that a process of seeking to understand how people live within, and construct the world around them, was an initial focus. As such, we paid particular attention to how social relationships shape experiences of health and illness. This meant exploring caring responsibilities, the experience of living with someone with neurodegeneration and how this might relate to football (for a less constrained discussion please see Matthews, 2025b).

Contacting

Each author has diverse experiences both academically and personally within sport and/or brain health. Space constraints mean that we will limit ourselves to a discussion primarily of first author, Jane’s, background due to her central place in recruitment, data collection and the effective delivering of the project. Jane is a white British woman living in the West Midlands of England. She has a background in dementia support as both a manager of a local dementia charity and as a researcher. These experiences were central to her ability to lead recruitment and data collection in a sensitive and ethically robust manner. However, she has no background personally or academically in sport, or sport-related brain health. The wider research team acted to fill in some of this information, if necessary, but invariably her sporting ‘naivety’ was useful as a means of encouraging participants to speak about often taken-for-granted features of ‘football life’.

Jane attended sport-specific ‘memory groups’ and then broadened these visits to more generic dementia groups, sharing flyers with contact details and speaking to attendees about the study. From this she found an informal network of people who were connected *via* football and/or their current roles as carers for former professional footballers. The recruitment process was quite protracted and involved. These attempts to make contact led to conversations with people who wanted more information, and several home visits were requested from prospective participants. Whilst none of these initial visits led directly to interviews, they did aid Jane in understanding more about the networks of support and connections that existed between groups and within the community.

Following this, she spoke to cultural ‘insiders’ who appeared to hold something akin to a ‘gate-keeper’ role. These were people who others looked towards for guidance as to the motivations, ethics and intentions of journalists, researchers and charity campaigners/activists who appeared to frequently contact former sports persons’ families. They were quite influential and could act to hinder or facilitate access to networks of friends seemingly connected *via* football. Once these insiders lent their support, recruitment seemed to flow more easily *via* word of mouth.

On average it took two months and two or three conversations before the carers were ready to participate in a formal interview. All potential participants wanted an initial chat about the work, and it was at this stage that Jane first found high levels of distress within the community. Four

prospective participants became so upset as they relayed some of their experiences in an informal chat that, while Jane maintained limited contact to ensure they could access support, she also took the decision to request another pre-interview conversation. At this point, in mutual agreement with these four participants, it was decided that it was not the right time for them to participate in a formal interview.

In total, six wives² and four adult children were recruited for interviews – they all had varying caring roles which flowed from the neurodegeneration of their husband/father. These men retired from professional football at least 40 years ago, they all played the majority of their careers in and around the top divisions of English football and some represented England internationally (more details in [Table 1](#) - all identifying features of the participants have been removed, modified or made vague). At the request of the participants one interview was in person and the rest were conducted using video conferencing software. The interviews ranged from 40 to 80 min in length and were transcribed verbatim. All interviews were conducted by Jane and recorded with the written and verbal consent of each participant.

Each interview focused on issues related to life prior to, and following, a diagnosis of neurodegeneration. While an interview schedule was produced it was not particularly useful. Rather, Jane encouraged the family carers to lead the conversation where possible. She started each interview with a discussion about consent and specifically how the data would be de-identified. This created an environment where the aims of the interview were clear. Each participant was first asked to talk about their life and family situation, Jane then took social cues around what the person was comfortable discussing, while also, if necessary, asking about the circumstances that led to the diagnosis, their experience of becoming a carer, the sports career of their loved one and their thoughts on what contributed to the illness.

Despite Jane taking a cautious and careful approach, each participant became distressed at some stage during the interview. She took time to pause, reassure the family carer and offer the option to reschedule. The emotional toll and labour involved in conducting (especially social) science has been well documented (for a recent example, Reed and Towers, 2023). Jane's primary job working in local dementia support means she is not unfamiliar with the harsh realities that can accompany living with neurodegeneration. However, the interviews and the preparatory chats and discussions needed to recruit and research ethically (and subsequent relistening during the analysis phase), became increasingly challenging for her. Chris decided on ethical and empirical grounds to end the data collection after the tenth interview. Alongside his motivation to shield Jane and participants from unnecessary distress, he was also confident that sufficient data had been produced for an important and powerful empirical account to be developed. In particular, as the sample – family carers of former professional footballers – has received scant empirical attention, and because the recruitment process was challenging and time consuming, a sample of ten people was felt to be sufficient.

Table 1. Brief biographical information of participants.

Jean	Jean is in her 80s and has been married to Mark for more than 50 years. He was diagnosed with dementia aged 70. Mark played over 100 professional games
Janice	Janice is in her 70s and was married to Brian for over 60 years. He was diagnosed with dementia in his late 60s. CTE was confirmed following his death in his late 70s. Brian played over 275 professional games.
Claire	Claire is in her 60s and was married to William for over 35 years. He played high level youth football and over 50 games professionally. William was diagnosed with dementia in his early 70s and died shortly after.
Jason	Jason is in her late 50s and supported his parents when his father, Nick was diagnosed with dementia in his mid-60s. CTE was confirmed following his death in his late 70s. Nick played over 400 professional games.
Sally	Sally is in her late 60s and was married to Sean for over 40 years. He was in his early 60s when a Glioblastoma brain tumor was diagnosed, he died shortly after. Sean played over 100 professional games.
Debbie	Debbie is in her late 40s and was the sole carer for her father John, a widower following his dementia diagnosis at in his mid-70s years old until his death in his early 80s 82. John played over 450 professional games.
Rebecca	Rebecca is in her mid-50s and cares for her father Jack, who was diagnosed with dementia in his late 60s. Jack played over 200 professional games.
Karen	Karen is in her early 80s and was married to Paul for over 55 years. He was diagnosed with dementia at in his mid-60s. CTE was confirmed following his death aged in his late 70s. Paul played over 450 professional games.
Nicola	Nicola is in her mid-40s and is the sole carer for her father Terry. He was diagnosed with dementia in his early 70s. Terry played nearly 300 professional games.
Kim	Kim is in her late 60s and has been married to Gary for more than 30 years. He was diagnosed with dementia in his late 60s. Gary played over 300 professional games.

Grasping

Chris' confidence in the empirical contribution that we present in this paper initially grew from the content of his regular meetings with Jane. It was clear that these families were suffering in various ways. We were thus confronted by a state of affairs that were clearly not as they should be and, as such, were in need of detailed academic attention (for a broad justification for such an approach see Matthews, 2024).

From this axiological position Jane conducted a first round of data analysis specifically focusing on substantiating her initial feelings about the participants' experiences. This process, and her discussions with Chris about what she felt she was finding, resulted in Jane highlighting reoccurring phenomena across the interviews and identifying where the participants spoke to important experiences, as part informed by our initial axiological and theoretical approach discussed above. We worked tentatively to sensitise what we felt to be important concepts in relation to our participants' experiences while staying open to subsequent lines of enquiry.

In this regard, several key empirical details quickly became apparent and as such prompted further reading. These included, but were not limited to, connecting neurodegeneration to heading; issues relating to the physical fitness and strength of the former footballers; family carers health suffering; obsessive behaviours towards children; the unpredictability of dementia following diagnosis including violence and aggression; the lack of any treatment pathway/plan and lack of support from former clubs and the footballing community; the financial and emotional costs associated with caring; various worries that came with the footballers' fame; shame and guilt about considering residential care for someone who was physically fit and relatively young; lack of support; and distrust of the players union and Football Association.

Second author, Jack, and Chris then led a process whereby a coherent analytical frame was built using Mills' (1959) discussion of private troubles and public issues. All four authors were involved in reworking, refining and pulling together the analysis that follows. Being critical leaning social scientists, we were drawn to sensitising our data using Mills' work as it was clear that the findings could not be understood sufficiently as instances of individual hardship detached from the social context in which the former footballers existed – capitalist sport. We thus placed the data in dialogue with existing work across the critical study of sport to draw out an analysis that did justice to the participants' empirical realities, as well as gaining insight into capitalist sport *via* our specific focus on outcomes of athletic labour and experiences of living with neurodegeneration. It is to these that we now turn in our discussions of data.

Private troubles of caring for former professional footballers with neurodegeneration

The family carers described a range of deeply personal private troubles. Claire gave a dramatic example of having to take her husband, “to the hospital ‘cause he hit my daughter, he'd head butted me, and he was threatening to kill us at that point, which had never... I mean, [he] was the nicest man you could ever wish to meet, and that was really hard.” Issues around such aggression, which is a symptom of various dementias (Gilmore et al. 2020. Yu et al. 2019), seemed to be exacerbated by the men's fitness and strength. Most of the participants described how physically challenging it could be to care for and sometimes manage these former athletes, as illustrated in Rebecca and Nicola's accounts:

He got very, very aggressive with mum, which is unheard of for him. Because she's tiny and he's quite a big man, and he was physically abusive and mentally abusive, it was awful. She had a bag packed the whole time, ready to come to me ‘cause we were so worried about what he... and we didn't know why. Then we got him diagnosed (Rebecca).

When he got angry, he does get strong. He didn't have an aggressive bone in his body, my dad. But it was just a pure frustration and I just had to stay in the room with my daughter, just locked until he calmed himself down, and eventually, it kind of exhaust himself to tears. Then I knew it was okay to come out (Nicola).

Kim, who said her husband Gary was “6’ft2 with the heart of an ox”, was evidently distressed when describing the precautions she had to take; “well I had a safe room, he was violent, so I had to. When somebody’s had you ‘walled up’ with his hands round your throat trying to strangle you.” She continued to express how difficult it was to cope with this when her husband could not remember what had happened, “but do you know, the worst bit was that I’d get away and I’d either go sit in the car or I’d go upstairs in the spare bedroom, I’d come back down 10 min [later] and he’d go, ‘putting kettle on love?’”³

The physical and emotional costs reported by our participants were coupled with economic burdens that caused them much stress. The financial success of high-profile contemporary footballers might lead some to over-estimate our samples’ economic security but, as noted, players’ incomes have increased significantly since these players retired and, when the EPL launched the average pre-tax player wage was less than £5000 per month. Certainly, from the situations that were described to us, affluent retirement seems to be something of a fallacy, as Rebecca told us, “you know, we’re not all millionaires, I wish we were, then we wouldn’t have to worry about it.”

The reality for the wives and adult children was that they were all very anxious about finding the money needed to provide adequate care. Rebecca continued;

And you’re worrying. You put your head on the pillow, and you think, “right, we’ve paid this month, we’ve now got to sort out next...” and it comes round so quickly and it’s thousands of pounds. I mean, where are you supposed to get it from? ... So, the financial side of things, at the moment, for mum and I, are the most stressful part of it all, and we don’t get help from anywhere, and they’re, like, £6,000 a month ... because I’ve taken over all their finances as well, so I’m dealing with everything for both of them ... but it’s hard because you just think, ‘how long can we keep going like this?’ It’s really difficult, and to not get help from anyone, anywhere.

All the participants described similar concerns. Moments in the interviews where such issues were discussed often felt to Jane like the participants were despairing – that no one was coming to help, and the situation would only continue to worsen.

Space restrictions preclude us from providing more data demonstrating the distressing parts of the carer’s lives, or undertaking a comparison with the experiences of non-sport related individuals living with dementia (see however, Górska et al. 2018). But we conclude from our data, that living with, and caring for, a former professional footballer with neurodegeneration had significant emotional and financial strain on the family carers lives. The physicality fundamental to, and developed during, a successful athletic career appeared to compound the challenges of caring for these men. But what we reveal here were not just personal and largely private troubles; they were traumatic experiences tied, in the family carers’ minds, to a career in professional football. In this regard, and following Mills (1959), they can speak to the public issue of the damaging and disabling of bodies, and brains, to which classic and contemporary sociological analyses of sport have drawn our attention.

Occupational neurodegeneration as a public issue of capitalist sport

All the family carers were adamant that the neurodegeneration of their loved ones inevitably flowed from a career in professional football. Karen told us, “for me it’s very obvious. There is no doubt.” Interviewees saw parallel experiences of neurodegenerative conditions across the occupational group: Jason commented that, “in fact, it’s almost harder to say which of the outfield players didn’t get it”; while Jean shrugged and said matter-of-factly, “like my husband, many of the players of his time died young with neurodegenerative disease.”

Indeed, in some cases husbands/fathers had forewarned of their diagnoses. While Debbie noted that towards the end of her dad’s playing career he became convinced of the link between the game and brain injury, Kim sombrely reminisced:

So we were actually seeing it anecdotally within the footballing world. But the dots were not being connected. But they were connected actually in Gary’s head, and all the way through [his] 30s, 40s, 50s he said quite often to me and the boys, “one day, I will potentially get dementia from the number of footballs I’ve headed.”

Thus, while biomedical scholars continue to debate the relationship between participation in certain sports and subsequent neurodegeneration (Nowinski et al. 2022; Iverson et al. 2023), the lay knowledge we accessed, not only dismissed the possibility of doubt, but suggested that the lay communities understand the potential post-career consequences as somewhat inevitable.

When this could be done sensitively, Jane probed these claims to encourage the family carers to provide some substantiation. The goal here was to develop a better understanding of how they considered training, competition and the lifestyle associated with football, contributed to neurodegeneration. They usually pointed to issues connected to their husband's/father's working conditions. In terms which resonate with Rigauer's (1969/1981) analysis of the division of labour and repetitive training which characterise capitalist sport production, Nicola said: "[the coaches and trainers] used to make him head medicine balls to strengthen his neck muscles and things like that". Echoing these comments and specifically recalling a manager by name, an exasperated Rebecca said:

I really do think it's from heading the ball, because when he was playing for [club name], they used to do their training drills and they had the big leather ball hanging from the rope, and they used to pound and pound, and then apparently [team manager's name], used to make them come back and do it again, and again, and if it was raining, the ball was even heavier.

It was not then simply the act of heading that family carers pointed to, but the organisational demands and authoritarian structures that meant that those involved in leading, coaching, and managing were either complicit in or directly to blame for their husband's/father's subsequent health. Here the participants' thoughts resonate with Murphy and Waddington's (2007) call for scholars to focus on 'risk transfer' (Nixon, 2004), in that they focused on the ways in which coaches and others around the athletes normalised potentially damaging training practices. In that regard, it is not simply the 'owners of the means of production' that are culpable, but also those who are centrally involved in maintaining and promoting cultures of risk and embodying coaching practices that appear to disregard workers' bodies and brains.

Janice provided a detailed explanation of this point. She recalled how her husband Brian started playing for the England Youth Team as a teenager but retired early from the sport due to health concerns:

So, we've got to the end of our 20s, throughout these [years] Brian had started suffering from increasing migraines. Took him to the club doctor, [and he] said to him, "it is what it is". So, I mean, at the time Brian was heading 100 balls a day. We have pictures of him with smelling salts on the field, because of the dizziness and dazed that came from heading.

Here, then, aligning with key contributions to the sociology of sports medicine (Alhashmi et al. 2025; Malcolm 2009, 2011), Janice pointed to the club doctor's complicity in the occupational culture that likely appears to be a significant contributory factor in Brian's dementia and subsequent diagnosis of CTE.

Similarly, Kim talked of why both she and her husband Gary thought his football career had contributed to his dementia diagnosis. While sharing pictures of Gary playing football, blood running down his face from a collision, jumping over an opponent to head the ball, she said:

Because he was a centre forward and striker, part of their training routine was something called 'head tennis'. So, they would stand in a circle, and they'd head the ball to each other, but then Gary would head it against a wall for like maybe 20 minutes. They said it was to strengthen his neck muscles.

There was an 'obviousness' to the way the family carers linked their husband's/father's neurodegeneration to the working practices that dominated during their career in professional football. To them, the evidence was clear.

Forgotten workers

When professional athletes no longer have productive labour and thus lose 'market value', the transition out of the sport business is often characterised by various challenges. Part of this involves once highly regarded and widely known sportspersons 'fading into the background' and having to adjust

to ‘normal’ life, as well as having to deal with the physical consequences from the demands of elite sport (McGannon et al. 2022). Our participants spoke to this reality, contrasting the adoration their husbands/fathers received at the height of their careers with the men who they watched deteriorate in front of them. Rebecca recalled that, as a player, her husband was “a star and everybody loved him” but following retirement and the development of neurodegenerative disease, “he’s just gone into the background, he’s disappeared. ‘Oh, well, you’ve had your day, you’ve done your bit.’ *No one cares anymore.*”

The contrast between the highs of sports celebrity, and the mundanity of life after football, magnified the challenges the carers experienced. But importantly, these largely forgotten football stars are also *forgotten workers* given that they were professional ‘players’ whose athletic labour supported the production of a business which had since seen an exponential increase in wealth. This fact was not lost on our participants. They expressed feelings of anger and injustice that they were now facing emotional and financial hardship, yet, in their assessment, those organising and owning football were (now) cash rich and, as such, could and should offer much more in terms of ‘pay back’ for the contributions and sacrifices made by their loved ones.

Jason reflected on the wealth generated by football and the estimated costs of taking care of retired players with neurodegeneration:

The Premier League gets 3 billion pounds a year, *3 billion pounds a year.* They’ve just done a new deal where they’re going to get 6 billion pounds; I think 6.7 billion pounds a year. I can’t give any amounts that would stand up to scrutiny, but I have spoken to other people, it probably isn’t even going to cost 20 million pounds a year to take care of all the players who are going to get ill. The ones now, and the ones that are going to get ill. 20 million pounds in football, it’s a drop in the ocean.

Of course, there is limited meaningful *emotional* support sporting institutions can provide these families. Our participants acknowledged this and mostly focused on the need for financial support to cover the costs of care which, to them, seemed self-evidently justified given that they saw their husbands/fathers as having contributed to an industry which now enjoys unprecedented incomes.

Most spoke of the lack of support available and the difficulties they faced when seeking financial help. Karen quite frankly said that she had received “nothing from the football community.” Rebecca recalled how her mother was *slightly* more fortunate than Karen (they were aware of each other’s situations), as she discussed how the players’ union, the Professional Footballers’ Association (PFA), had offered two weeks respite from the everyday reality of dealing with the stress of caring for her husband. But, given the extent of the emotional and financial toll of the occupational neurodegeneration, and given that her mother had to sell her house to cover the cost of care, this was seen as little more than a performative, and even insulting, gesture.

Debbie spoke to similar difficulties in getting institutional support from the PFA. She told Jane of the ‘battle’ she faced:

You don’t expect (to be) applauded for something... but to be treated so badly as we were, but it should be the same for anybody who paid into a union, everybody should get the same, whether you played at the highest level, or whatever level you played at, everybody should be treated the same if you paid into a union, and it is a battle at the moment... It’s like the miners, my uncle was a miner, they paid all their life into a union and when it came out about lung [pneumoconiosis], you know, you’d get compensation for it.

Across the participants, there was a feeling that the ‘establishment’ – clubs, governing bodies and the players union – had turned its back on their husband’s/father’s suffering. Moreover, in our participants’ assessments, there was active obfuscation around the issue of dementia being caused by playing football. Jason felt that an acknowledgement from football authorities would be a good first step to addressing the needs of future players, “they should acknowledge the problem, they should be putting care plans in place, they should have a formula of what should happen, and when you get your diagnosis, even before the diagnosis if you’re worried, people should be able to contact [someone].”

In contrast to this, Jason spoke about the lack of acknowledgement of his famous father’s illness from his former club/employer.

I mean the club, when my Dad was dying in his care home, you know, when he was poorly, not right at the end but while he was in for a few years, [the club] was asking him to attend functions for them for free, and the FA [Football Association] sending us, '[father name] would you come and attend this for us?' Just disgusting.

The family carers that Jane spoke with who had received support from the PFA and football clubs, felt this was largely symbolic, piecemeal and came with various unnecessary strings attached. The size and partial nature of the sample means we must be cautious when drawing broad conclusions in relation to the failure of those who govern and manage professional football. And we do note that most, but certainly not all, of the support the families received happened prior to the establishment of the PFA's Brain Health Fund in 2023. However, in classical Marxist terms, the carers – through the experiences of neurodegeneration – had become acutely aware of their husbands/fathers' exploitation by capital.

Concluding comments – confronting capitalist sport

Our data shows that family carers with responsibilities for former professional footballers living with dementia experience significant emotional and financial difficulties. These challenges may be compounded by the physical size and/or strength of these men which, in turn, may have been fundamental to their occupation. Yet these challenges are in no way offset by the financial earnings experienced during and subsequent to their (often all too brief) sporting careers. The carers attributed the neurodegeneration directly to the working conditions their husbands/fathers had encountered during their playing careers.

In contrast to the ongoing debates and search for medical 'certainty' evident in the protracted development of a legal case against the footballing authorities, lay understandings unequivocally located the blame for the causation of neurodegeneration among former athletes at the hands of the industry. While they described a process of 'risk transfer' *via* coaches placing particular training demands on players, they universally and unequivocally blamed the industry rather than simply the former athletes' co-workers. A retrospective sense of exploitation was inextricably bound to, and in all likelihood magnified by, the changing economic fortunes of the game, especially the publicity surrounding the lucrative contemporary sponsorship and broadcasting rights, and the dramatic growth in player wages in recent times.

These findings give some important empirical glimpses into the family carers' experiences. As such, they are worthy of telling in their own right. By focusing on the experiences of family members we extend the literature which has tended to focus on players/workers themselves. We have, alternatively, shown that the consequences of athletic labour has wider impact. Thus, the capitalist trade of professional sport is also built on and sustained by those 'around' the athlete. While not directly paid by the industry, families must manage the material breakdown of bodies which is inherent to many of the Western world's most popular, prized and profitable sports.

This additional layer of economic exploitation is important to note, as is the gendered nature of this unpaid labour (see Ortiz, 2021; Simonetto, and Sailofsky, *forthcoming*). While these burdens have, perhaps, long been known in relation to musculoskeletal impairment, the changing awareness of the risks to brain health invoke very different financial costs, very different emotional costs, and indeed very different overall burdens of care. In the case of neurodegenerative diseases, the economic and time costs are magnified, and such experiences are compounded by the sense that the carer is losing the person they knew, loved and shared their life with. These are the personal troubles experienced after the spotlight of sports celebrity fades.

But just as centrally, and perhaps of wider significance, the collation of these experiences speaks to the public issue confronting the sports industry in general and football in particular. It is clear that support for the carers of former professional footballers living with dementia is increasing. Indeed, following encouragement from Jane one of the participants did receive extra support by contacting the PFA. That situation is unfolding so we have not reported it in our findings. And our extended team has published a booklet for former sports persons and their families, which builds

on this work and the knowledge of those sitting in our research steering group (Rowley, Jackson, Matthews, 2026). But the dramatic and painful nature of the family carers' emotional and financial distress highlights something which must ultimately be addressed by those in positions of power within the football industry and sports governance. Close to 100% of professional players in the EPL, Women's Super League and English Football Leagues are members of the PFA which gives the association considerable leverage to change the working conditions of members.

Additionally, when these personal troubles and public issues are placed in dialogue with the extant literature on the critical study of capitalist sport and exploitation of athletic labour, a deeper understanding comes forth – that these empirical insights are tied directly to the social structure of professional football, and capitalist sport more broadly. In that respect despite clear empirical differences, this paper offers a similar analysis to that of Matthews and Channon (2016) who centred the material damage to ice hockey players' bodies as connected to spectators' consumption of the sport. That is, while professional sport has clear symbolic and ritual components, such phenomena are built upon the repetitive and chronic material breaking down of athletes' bodies. Such a process can be considered as a logical outcome of the capitalist framing of sports wherein players, coaches, team doctors, fans, organisers and owners are complicit in normalising the sacrifice and exploitation of players' bodies and brains in the pursuit of performance and profit (Kalman-Lamb and Silva, 2024).

We earlier lamented that the fully throated critique of sport as a capitalist institution has become less frequent within social scientific research. In part this is because such ideas may have become largely naturalised within the sociological study of sport. We also accept the pressure on academics to say something 'original' as a feature of trying to get their work published. But as Monbiot and Hutchinson (2024) note, neoliberalism is *The Invisible Doctrine*, and fundamental to the strength of influence of neoliberal ideas in underpinning contemporary manifestations of capitalism is an anonymity which (falsely) renders the current economic structuring of society as inevitable. By failing to explicitly address the principles of the 'mode of production', researchers run the risk of depicting a tacit acceptance of a state of affairs that many, we suggest, would agree are not as they should be. This is then an uncritical position which does not fit with how many scholars understand the nature of the scientific enterprise (Becker, 1967; Matthews, 2024; Sayer, 2009). With this in mind, we hope readers will see the importance of explicitly exploring professional sport as a capitalist institution which is built in various ways on the commodification and subsequent destruction of bodies, brains and the lives more broadly of sportspersons and their families.

Notes

1. For more detail please see: www.ntu.ac.uk/research/groups-and-centres/projects/caring-for-former-athletes-who-live-with-neurological-disorders.
2. We refer to these women as wives rather than 'partners' or 'spouses', this denotes how they identified their relationship status, and overrides the terms we might have chosen to use ourselves which were less embedded in traditional gendered language.
3. While this is not the focus of our analysis, it is important to acknowledge the gendered dynamic of these relationships. Chris is indebted to Deana Simonetto for pointing this out to him. Previously to that conversation he had thought mostly on the players and families *shared* suffering in relation to athletic labour and had not paid sufficient attention to the ways in which the victimhood of the male athletes might mask their violence. Simonetto and Sailofsky's (forthcoming) recent work does an excellent job of furthering such an understanding.

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Statement of AI use

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