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Narratives of Chronic Pain in Sport

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Abstract

Sports injury research has predominantly focused on acute injuries, often overlooking the complexities that may be associated with chronic injury. Consequently, the aim of the present study was to understand the experiences of individuals who continued to take part in sport with a chronic injury. Using a narrative methodology, 10 athletes who had experienced chronic pain for at least one year took part in interviews which asked them to narrate their story of pain. Results identify the imprisonment narrative used to describe chronic injury and consider that the causes of this “imprisonment” may be both physical and environmental. Further, this study illustrates how athletes have coped with chronic pain, emphasizing the body-self relationship and the difficulties associated with adapted sport. These findings have important implications for practitioners working with injured athletes, emphasizing that the experiences of athletes in chronic pain may differ considerably from those in acute pain.

Pain has been described as a distinctively personal experience (Heil, 2012), a suffering which is mostly indefinite to others but which can be communicated, in part, through words and behaviours (Fordyce, 1988). While the sport psychology literature has described the experience of pain as a result of athletic injury (e.g. Madrigal & Gill, 2014) it may be suggested that pain should be differentiated from injury. Injury is more objective and can be defined by a breakdown in the structure of the body, whereas pain is the marker of injury, an unpleasant sensation and emotional experience (Howe, 2004). For some injured individuals pain may be acute, lasting for a limited period of time. Yet for others, pain may become a pathological process, present for months or even years after injury (Howe, 2004).

Research has identified three types of chronic pain: chronic-recurrent pain, chronic-intractable-benign pain, and chronic progressive pain (Sarafino & Smith, 2012). These types of pain are differentiated by the longevity and worsening of pain symptoms. Chronic-intractable-benign pain represents consistent pain that fails to respond to treatment. Chronic-recurrent pain is similarly resistant to treatment, yet is separated by bouts of no-pain. Finally, chronic progressive pain is associated with a malignant condition and becomes increasingly intense as the underlying condition worsens. While understanding the types of chronic pain may give us further insight into the causes and frequency of pain, such descriptions give little indication of the subjective experience of living with chronic pain.

For many people chronic pain can be life changing, impacting on routine tasks on a daily basis. In their large-scale study of Europeans suffering with chronic pain, Breivik, Collett, Ventafridda, Cohen, and Gallacher (2006) found that chronic pain had a serious impact on the social and working lives of sufferers, with 21% also diagnosed with depression and 61% being less able or unable to work outside the home. The literature has frequently focused on the emotional impact of chronic pain, with researchers such as Linton (2000) suggesting that those with chronic pain might also experience emotional distress, mental exhaustion, fatigue and

anxiety. Broom, Kirby, Adams, and Refshauge (2014) provided an in-depth account of these emotional experiences, using a daily diary to understand the experiences of elderly women in chronic pain. Their results illustrated the isolation that may be experienced from social disruption, alongside the illegitimacy of pain felt by chronic pain sufferers. Participants reported feeling fraudulent when describing their pain and expressed guilt that their pain was not as serious as others. Such accounts of chronic pain not only portray the disruptive role that this type of pain can have in the life of the sufferer, but also the crucial importance of understanding the meaning associated with pain for the individual.

In particular, theoretical explanations of chronic pain have centered on whether pain is perceived by the individual as threatening to his or her well-being. The fear-avoidance model of pain (Crombez, Eccleston, Van Damme, Vlaeyen, & Karoly, 2012) suggests that when pain is not considered to be threatening the individual is able to resume daily life and physical activities. This facilitative interpretation of pain allows individuals to test their physical limits in daily tasks and re-evaluate their expectations of the pain to generate consistency with actual pain. Alternatively, a threatening interpretation of pain can lead to a debilitating fear of physical movements and reduction in physical activity. As a consequence, this ultimately provides fewer chances to reassess pain and leads to exaggerated expectations of future pain (Crombez et al., 2012). The long-term outcome of pain perceived as threatening may therefore lead to more chronic or debilitating long-term pain, alongside hypervigilance and a heightened awareness of pain.

While there has been a range of research examining chronic pain sporting population's experiences of chronic pain may be arguably different. Nixon's body of research highlighted that athletes may rationalise injury and pain in order to gain sporting success. This “culture of risk,” as described by Nixon (1993), promotes the acceptance of pain as ever present and may ultimately mean that athletes accept and even glorify the necessity of playing with pain.

(2011), found that rhythmic gymnasts and dancers scored in the pathological range for dissociative disorders. As Thompson et al. (2011) explained, these results may indicate either that pathological dissociation was used to achieve high levels of performance while coping with serious problems, or that demanding performance practices predisposed these performers to pathological dissociation. While athletes may be well practiced in coping with pain, to date the predominant focus of the sport psychology literature has been on acute pain. While this literature may provide some insights into the experience of being injured, it does not account for pain that is persistent and incurable. Consequently, the aim of the present study was to understand the experiences of individuals who continued to take part in sport with a chronic injury. Specifically, this study used a narrative methodology to illuminate the types of stories told about chronic pain.

Method

One of the basic assumptions that informs and justifies the use of narrative inquiry is that the body is a storyteller (Smith & Sparkes, 2009). Thus narratives are embodied and because people live in and through their bodies they are important to the stories told and are connected to everything that people do. As Smith and Sparkes (2009) suggested, “the body projects or unfolds its personal, subjective realities of sport, for example, onto other bodies and social spaces” (p. 5). Further, previous research that has utilized a narrative approach to study chronic pain has endorsed the value of this approach, suggesting that narratives can allow different stories of pain to be heard (Dow, Roche, & Ziebland, 2012). Given this inextricable link between bodily experiences and storytelling, narrative inquiry provides a valuable opportunity to illuminate the meanings associated with experiencing chronic pain, how these meanings are composed, alongside the personal and social experiences associated with being an athlete in chronic pain.

Participants

Following ethical approval, we used purposive sampling to recruit participants who had continued to engage in sport and/or exercise with a chronic injury. In particular the literature has highlighted the complexities associated with categorizing and defining chronic pain and so three inclusion criteria were developed for this study based on existing literature (e.g., West, Usher, Foster, & Stewart, 2012) and previous definitions of chronic pain (e.g. Koestler & Myers, 2002; Howe, 2004). In order to participate in this study, participants were required to: (a) have experienced pain for more than six months; (b) have sought medical treatment but reported that this was unable to relieve pain; and (c) continued playing sport despite pain. Given that chronic pain may be both unique to the individual and complex to define, these criteria were developed to be flexible. In cases where the chronic nature of pain was unclear, these participants were interviewed to understand more about their pain and the case was reviewed at the end of the interview.

Ten participants agreed to take part in the study (5 males, 5 females) who were aged between 20-56 years old ($M = 33$). This wide age range is also indicative of the number of years participants had been experiencing chronic pain. In particular, as researchers we were struck by the longevity of participants' chronic pain experiences. Our recruitment criteria indicated we were initially looking to recruit participants who had been in pain for at least 6 months, yet our final sample ranged from pain experiences of 1 to 20 years ($M = 9$ years).

Participants were recruited from a wide range of sports including team sports (football, cricket, handball) and individual sports (gymnastics, athletics). Our recruitment criteria did not include any criterion regarding the level of play, and consequently, we recruited individuals from a range of skill levels, including recreational, regional, and national. The reason for this was twofold. First, we hypothesised that those competing in chronic pain may report either feeling held back from achieving their full capabilities or may have withdrawn to a lower level

of play because of their pain. Second, our aim was to understand the experiences of all individuals continuing to take part in sport despite experiencing chronic pain. The stories of those who continued to play for pleasure were equally as important to our research question as those who had achieved a high level of participation.

All participants reported that they remained in chronic pain at the time of the study. Eight participants were continuing with their sport involvement despite this pain while the remaining two (Jennifer and Emma) no longer participated but have maintained an active lifestyle.

Data Collection and Analysis

Following ethical approval participants took part in a narrative interview that invited them to story their experiences of living in chronic pain and participating in sport. When using narratives to discuss illness and pain firstly the tellability of the stories must be considered. Tellability, as described by Norrick (2005), is a two-sided notion; the story must warrant interest to the listener but not be so embarrassing, personal, or frightening that the story becomes no longer tellable. Norrick (2005) suggested that medical narratives often raise hope as they tell stories of success and recovery from illness or injury. However, when no recovery is possible the story becomes less tellable. Yet Smith and Sparkes (2008) suggested the upper-boundary should be extended, to allow for the telling and hearing of difficult stories. Therefore, for those with chronic illness or pain for whom narratives of recovery are unlikely, we must move past this boundary to allow these individuals to tell their stories. While this may be a difficult barrier to break, the interviewer (first author) was cautious of signifying any preference towards hearing stories of recovery and restitution. Instead the interview used an open format, asking participants to begin by describing their life before pain and (where suitable) followed a chronological approach led by the participant. Where questions were asked these aimed to guide participants through the narration of their story, focusing on their initial experiences of

pain, the development of chronic pain, and the experience of living with chronic pain. Interviews lasted between 60-100 minutes ($M = 78$).

A structural narrative analysis was used to focus on the progression of plot in each narrative. In particular, this type of analysis has been suggested as a valuable tool when the aim of the research is to depict evolving life experiences (Lieblich, Tuval-Mashiach, & Zilber, 1998). As described by Riessman (2008), structural analysis involves several stages, including transcription, immersion, plot development, and content analysis. To begin, each interview was transcribed verbatim. Next, the researcher read each transcript several times to become immersed in the data, gaining an impression of the structure of each story. From this, a summary was written of each story to establish the plot and identify the type of narrative included within the stories. At this point both authors questioned and considered the axis of the plot and what had shaped the story being told. In particular, discussions focused on how chronic pain was described and storied over time, and how the meaning of chronic pain changed and developed. In this consideration of how chronic pain was described we identified the valuable role played by metaphors. While the extraction of metaphors may be typically associated with a narrative analysis of form (Smith, 2016), this literary device was frequently used by participants. As Stewart, Smith, and Sparkes (2011) have illustrated, metaphors can capture the vividness of experience, as well as affecting the ways in which people perceive, think, and act. In line with this suggestion, we considered the metaphors used by participants and how they helped to form the story being composed and made the story meaningful (Smith, 2016). Thus metaphors contributed to the narrative typology which reflected a broader consideration of the plot and organisation of each story.

As the structure of each story emerged it was compared across participants and considered in accordance with any potential narrative type. As Smith (2016) suggests, it is important to consider if the narrative has been circulated in wider society and whether this has

been noted before. Previous research has identified numerous types of narratives including performance (Douglas & Carless, 2015), chaos, quest, and restitution (Frank, 1995). As part of the analysis process, the second author acted as a critical friend, questioning the function of each emerging narrative type, how each was grounded in the stories collected, and whether each had previously been noted in the literature. During this discussion it was concluded that the stories told by participants did not fit any existing narrative type and consequently two new narratives that represent the experiences of athletes in chronic pain are presented in the results section.

Judgement Criteria

In keeping with the narrative methodology used in this study, we employed a relativist approach to judging and enhancing quality. Ontological relativism suggests that reality will be multiple, created, and mind-dependent. Consequently the application of universal quality criteria was incongruent with our approach. We were instead guided by Lieblich et al.'s (1998) four recommendations: we aimed to ensure (a) width through in-depth interviews that were led by the participant, (b) coherence through our analysis and writing by creating a meaningful picture of participants' experiences, (c) insightfulness by illuminating stories of chronic pain that may otherwise have gone unheard, and finally, (d) parsimony through the depth of discussion in our results.

Results

For all participants, stories of chronic pain were told in conditions of uncertainty, fear, and without a sense of temporality. While participants initially hoped that the body may be “fixable,” the realisation of the chronic nature of their pain led to stories told through and about a body which imprisoned them. Yet most often such stories were not sustainable and an alternative narrative of caring for the body in pain was also offered. The following results

section presents each of these two narratives in turn, highlighting key themes which emerged and illustrating how participants moved from imprisonment to caring.

Narratives of Imprisonment

All participants framed their stories of chronic pain against a backdrop which described how it felt to play sport without pain. Such descriptions are common in the literature, with previous researchers such as Kirkham, Smith, and Havsteen-Franklin (2015) illustrating the autobiographical marker often provided by participants who split their lives into before and after pain. In particular, our participants’ early descriptions focused on feelings of freedom and the natural experience of playing sport before pain.

Sport felt enjoyable, it felt natural, it felt like it was part of who I was. It felt very comfortable, it helped me build my confidence. It was helping me to regulate my emotions, like a vitamin pill that I would take everyday. That’s how I used to see it, for my body and my mind. My body felt strong, I would go for a run and enjoy the feeling of flying, feeling so fast and feeling my body warm up. (Phoebe)

These body memories demonstrate awareness of the somatic experiences of being an athlete prior to chronic pain. As Rothschild (2003) suggested, images, sensations, movements, and emotions may all form part of body memory. For our participants, stories of sport prior to chronic pain represented memories of flow, illustrated by effortless performance. Such stories served two main purposes, first, they fuelled future aspirations to achieve this bodily state again; second, they highlighted how the body felt different when performing in pain. For example, as Ellie described:

When my body was out of control- sprinting as fast as I could with the ball at my feet -then I felt in control. It was just that complete freedom I think. There is no pain, no twinging, no spasms, no numbness or tingling. Just complete and utter control... In your head you think this is always going to be the way.

Just as Frank (1995) described the common metaphor of being shipwrecked by the storm of disease when telling illness stories, here participants all described how chronic pain

trapped or imprisoned them. Yet importantly this imprisonment took a variety of forms. Predominantly, participants described the somatic sensations of being restricted by the body.

When I was younger and I could just do it, it was freeing, it was nice, you felt light and happy. When I became injured I felt almost trapped and confined by the limitations of my body so that whole limitless, weightless sort of bliss just disappeared. (Douglas)

While previous literature has suggested that people with chronic pain will tend to reduce their levels of activity (e.g., Cameron & White, 2015) for fear of worsening symptoms, participants in the current study described an on-going struggle against their bodily restrictions. For participants, escape from the imprisoned body was sought through continued training, pushing the already painful body further. For some participants such actions were storied as a personal victory over pain "I needed to do it [sport] and I needed to prove to myself that despite the pain I was still able to exercise" (Phoebe). Whereas others described being unable to overcome their bodily symptoms: "you're trying to perform, you're still trying to do well, but your body just doesn't do it" (Paul). In particular, being unable to overcome the imprisoned body led to feelings of frustration and anger.

You felt like you were losing a lot, you knew it was holding you back and I felt angry at my knee, it's let me down. I was angry at myself for letting it happen, I knew what had caused it, it was a wear and tear injury... I should have known these things and couldn't stop myself. I was so angry at myself and angry at the knee because everything else was fine. I am physically fit, I am strong, I have everything I need except that my knee won't let me run around a corner. (William)

For many participants the chronic nature of pain, often caused by wear and tear to the body, represented failure as an athlete. Consequently, participants' stories reflected the self-blame associated with such an injury:

I look at it and think I lost too much in that period and it is my fault. You know, I can't blame it on some accident, like I hit a hurdle and broke my leg or anything like that, it is my own stupidity. (William)

For some, this self-blame also led to a lack of care for the body, reflected by disengagement in behaviours and regimes previously associated with being an athlete:

I had always been so fit and healthy, and I let myself go because I didn't have a care in the world about my body. I ate what I wanted to and I didn't go to the gym. That's when I realised this injury is getting to me quite badly... I got into a rut and I hated my body... I didn't like my body and then I didn't like myself for doing that to it. It was hard. (Emma)

Yet it was not only the physical body that imprisoned those in chronic pain. Alongside this, participants described the changes to their environment incurred during their experience of chronic pain. As Phoebe described:

I used to swim and that felt natural, at first I just swam more but I felt dependent on the gym and I have never liked gyms. For me exercise has always been outside. In Australia we grew up exercising outdoors and so going to a gym and being bound by the opening hours, by the membership fees... I felt trapped. I just couldn't get up and run, I was always bound by the gym or the pool opening to exercise. I had to always think of the logistics. How do I get there? What shoes do I wear? My foot is feeling a bit sore, am I doing too much?

Further as William described:

I was more independent when I was pain free because I used to run alone. I love running on my own in the morning, that was my thing. Now, when I started to get pain I needed more support, I didn't like to be exercising on my own, I had lost my confidence.

In an effort to escape from their chronic pain, participants described seeking help from a wide range of practitioners and approaches. In accordance with previous literature (e.g., Kirby, Broom, Sibbritt, Refshauge, & Adams, 2015) participants valued those practitioners who recognised their pain and situated this as credible and worthy of attention. As Julia described:

I went there [physiotherapy practice] because my daughter had an achilles problem and he was there telling her exactly what she had, like a magician. So I said 'can you sort my hip?' He could tell me exactly what I was feeling, which actually made me feel really good because I thought am I making it up? Am I becoming a hypochondriac? Am I really experiencing the pain I am feeling?

While practitioners often helped participants to justify their pain as “real” (Osborn & Smith, 1998) efforts to relieve chronic pain were most often described as futile, first raising hope but subsequently causing frustration and anger. As Alex recalled:

I would get involved in a [rehabilitation] programme and think it is working. But then it won't work and so your faith in the whole thing gets less and less. So it's very stressful and frustrating. You get to a state where you feel like there is no way to express your frustration because you have been used to it for so long. When I was younger I would get really angry and upset but now you get used to the disappointment... Your hope of it [pain] improving just gets less and less as you go to more [practitioners]. My faith in it diminished quite a bit. Things that you do for a couple of months, training programmes that you think should have an impact, they just don't have an impact. When anyone says to me that this might help, or this exercise might help then I think to myself, that isn't going to sort it out.

The above example illustrates the cumulative negative cycle of seeking help and hoping for cure, followed by a lack of pain resolution. At first this lack of pain resolution was attributed to the medical practitioner and consequently alternative help was often sought. Yet over time, participants began to perceive the body as 'unfixable'. Despite this perception most participants continued to seek medical advice, believing this to be something they *should* do, but without hope of cure. As Paul described:

I had gone through a process, someone said they can fix it and then they didn't fix it. So I had paid money for it and then I was back to square one... What is the point? It [treatment] doesn't work, but it may make you feel better because you are doing something about it.

While participants recognised that medical treatment was not effective in curing their pain, conversely the act of seeking treatment allowed them to demonstrate to themselves and to others (such as coaches and family) that they were actively engaged in healing pain rather than accepting pain. As Rolbiecki et al. (2016) have suggested, patients' active engagement in medical and/or complementary treatments is often a method of demonstrating resiliency. Throughout the narrative of imprisonment participant stories focused on attempted actions to relieve pain and demonstrations of defying pain. Both served to avoid accepting pain and were presented as positive coping strategies, yet both were also unsustainable. Repeated attempts to heal pain left participants feeling frustrated and hopeless, while demonstrations of defying pain caused participants to question the value of their actions.

I just felt drained all the time because you couldn't do what you knew you could do. So I lost faith in my body. I felt really drained. You would come back from training, shoulders hung down and think, well that's another training session done. I didn't gain anything, I don't know why I did it, why do I bother?
(William)

Caring for the Injured Body

For most participants the cumulative negative cycle of seeking help resulted in an eventual acceptance of their pain. While such acceptance had initially been feared, this acceptance formed a turning point in their stories of pain. Phoebe exemplified this turning point, describing:

I almost wanted to have the worst view so I could be pleasantly surprised if it did get better. So I said to myself, look you could be out for two years with this. My partner was saying 'I'm sure it will get better, it will be a few months and it will be fine'. I was almost angry, saying 'well how do you know that, you don't know that and that is only going to give me hope'. There was this big struggle between being hopeful and being realistic. I just got to the point of trying to accept that I had an injury because I was living in hope all the time. When it wasn't getting better I started to think that this is more damaging to my emotions than being realistic.

Such statements echo Kirby et al. (2015) who proposed that normalising and reframing chronic pain as not curable may be less problematic for sufferers.

In similarity to Kirby and colleagues (2015), our results suggest that when a cure for chronic pain was no longer perceived as possible, participants recognised the importance of caring for the injured body. In particular, by caring for the injured body, participants experienced a reconnection to the body and an increased sense of responsibility for their own well-being. As Paul suggested:

My mentality became one of self-management and self-preservation of my knee rather than one of 'let's try and fix it'. I know my body better than anyone else and I genuinely feel that out of all the exercises I have been given by all the health professionals, not one of them has helped me... But when you accept it, it becomes part of you, rather than something that isn't a part of you that can be fixed.

In addition to taking responsibility for their own health, participants also described an enhanced appreciation of the body, illustrated by the need to listen to the injured body,

particularly when being actively involved in sport. Such suggestions contrast the earlier approach of demonstrating defiance of pain and instead represent a partnership with the injured body.

I respect my body more and I am learning more about my body. I am learning to listen more intuitively to my body so that if I am feeling tired then I won't go for a swim. If I haven't had enough sleep then I will listen to that now. Before I would just do it, almost like I wouldn't give my body a voice. If I had been more in tune with my body before I was injured and in pain then I wouldn't have probably got to that point. I can still run now, sometimes in pain and sometimes not. But if I am in pain I have learnt not to fight it, just accept it, which almost makes it go away. It takes it out of your focus, you are not giving it importance in life. (Phoebe)

Further, as a result of listening to the injured body participants also reported an enhanced understanding.

You understand more about what is actually happening and when you understand the structure of your own body then you think that you have a better understanding than some of the people who are looking on [medical practitioners]. (Alex)

Importantly, Carroll, Rothe and Ozegovic (2013) have suggested that coping with chronic pain is more than a technique or strategy but a re-definition of life. For our participants, accepting chronic pain also meant re-defining what constitutes successful performance in sport. In particular, the focus most often shifted from performance at all costs to pain free performance

I'm trying to find a way that I manage it, things like changing the way that I sit, the set up of my bike, how I ride on the bike. I'm starting to stand up more rather than stay in one position for a long time, even though that is against what you should do for speed. It is more important that I finish, so I prefer standing up and cycling. I just do that more now, it's not the end of the world. My body is more important than riding a bike correctly. If I can get round the course in some way then it's fine. (Paul)

While such adjustments were cited as necessary to continue sport after chronic pain, these changes were not always welcomed. Specifically participants described the different emotional and bodily sensations during adapted sport. For example, “you sweat but it is not the same as running for me” (Douglas), and “I would compare myself to the people on the

treadmill in the gym thinking that is what I have become, I’m becoming a casual runner, I run in a straight line” (William). Similarly Julia described:

I have achieved what I want [with adapted exercise] I’m hot, I’m sweaty, I’m puffing, and I ache, a good ache... Sometimes it’s boring but I put on my head that is sporty and say you have got to do that in a quicker time.

Thus, while participants were able to continue their sport or exercise participation, their stories of adapted participation often lacked the fulfilment described before pain.

Discussion

The objective of this study was to explore the stories of chronic pain as told by individuals who have continued to engage in sport throughout their pain. Our findings illuminate the difficulties experienced when continuing sport in chronic pain. In particular, we highlight the role and use of the narrative of imprisonment, used to describe not only the embodied experience of being in pain but also the social and environmental restrictions. Importantly, participant stories also highlight the difficulties of coping with chronic pain, suggesting that strategies such as attempting to defy pain and continually seeking advice from practitioners served to avoid accepting the chronic nature of pain. It was only when such avoidance strategies were no longer possible that participants gave voice to the injured body, learning to listen to symptoms of pain and adapting sport accordingly. Yet while such adaptations allowed continued participation, different emotional and bodily sensations were reported, and the meaning of successful participation was re-defined.

The results presented here add to our understanding of chronic pain in sport in a number of ways. First, our results demonstrate the valuable role played by participants’ use of metaphor, both in helping to form the story being composed and by adding meaning and vividness to the story. The use of the imprisonment metaphor illuminates the experience of chronic pain while also depicting the restrictive and debilitating nature of being in pain. As suggested by Smith and Sparkes (2004) an inextricable connection exists between metaphors,

stories, selves, and bodies. Metaphors are not simply about cognitive patterns of thought and action but are culturally and historically contingent, portraying the linguistic structures and forms available to the individual. Indeed, our results demonstrate the narrative juxtaposition between the experience of flow and effortless performance before chronic pain and the later description of the confined body in pain. As Frank (1995) suggests, much can be learnt from how narrative maps of illness are conveyed by those who have traversed this territory. The use of metaphor provides a powerful resource to participants by helping them to represent their experiences. Just as Kirkham et al. (2015) have illustrated the immediate effect of artistic impressions of chronic pain through the use of colour and objects, verbal metaphors can create a similarly vivid picture of the experience of the body through language. Yet Berna et al. (2011) suggested that despite being a rich source of information about patient’s beliefs and fears, mental images of pain have rarely been explored in clinical populations.

Second, while it is intuitively understandable that chronic pain will limit the physical capacities of the individual, our results illustrate the wider impact of chronic pain on the exercise environment. Authors such as Nisbet, Zelenski, and Murphy (2011) have suggested the health benefits associated with engaging in nature-based physical activity, identifying the potential therapeutic effects of this environment. Similarly, Ryan et al., (2010) have proposed that contact with nature can cultivate feelings of vitality and well-being. For our participants, rehabilitation guidelines and the unpredictable nature of chronic pain meant that they were often unable to exercise in the natural-environment. This added to their sense of imprisonment as the indoor environment bound them to particular times, financial pressures, types of activities, and transportation, none which had been considered when exercising outdoors. As suggested by participants, being restricted to an indoor environment lowered their sense of freedom, thus the body became not only physically imprisoned by chronic pain but also environmentally. Such suggestions may have important implications for treatment providers

such as physical therapists who might seek to transfer some aspects of rehabilitation into the natural environment, particularly for those athletes who have previously trained outdoors.

Our third suggestion is that our results illustrate the complexities of coping with chronic pain. As Carroll et al. (2013) have suggested, pain coping represents a fundamental and intrinsic stance in attitudes and beliefs. For our participants, defying pain (through continuing to play sport) was initially perceived as an effective coping strategy. Indeed, such a strategy echoes Nixon’s (1993) suggestions that athletes will rationalise injury and pain in order to gain sporting success. Yet while playing through pain may be commonplace in sport, perhaps more worryingly our participants described this defiance as a lack of self-care, demonstrated through additional behaviours such as poor nutritional intake, and grounded in the belief that they may be personally responsible for their injury. In line with this lack of self-care, previous literature has suggested the potentially detrimental impact that physical trauma or illness may have on an individual’s relationship with their body. Sabiston, McDonough and Crocker (2007) described the sense of betrayal that breast cancer survivors felt towards their own body. Similarly, Hefferon, Grealy, and Mutrie (2010) suggested that it was only after the alleviation of physical ailments that breast cancer survivors were able to reconnect with the body and start listening to the body. In a similar vein, our participants described that while they defied pain and hoped (but failed) to be ‘fixed’ they experienced a disconnect with the body, fuelled by their sense of responsibility and frustration towards the body. As medical and psychological practitioners it is important to recognise that playing through chronic pain may be associated with the athlete’s beliefs about responsibility for injury and may therefore represent a lack of self-care. Indeed, for all of our participants the turning point in adapting to chronic pain was learning to listen to the body. Such suggestions emphasise the crucial role of the body and the individual’s relationship with the body for athletes in chronic pain.

Finally, all of the participants in this study reported successfully adapting sport or exercise in order to continue participation. Yet while such strategies were perceived as a viable method of coping, adapted sport did not offer participants equivalent physical and emotional experiences in comparison with their descriptions of sport before pain. Further, in order to adapt their participation participants also recognised that they were required to re-define their perception of athletic success. Consequently while this strategy allowed continued participation, it also highlights that chronic pain may threaten an athlete's beliefs and goals. Smith and Osbourn (2007) suggested that the threat of chronic pain may be described as toxic, eroding the familiar sense of self and replacing this with a pain-induced, shameful self. For those engaged in sport, pain denied them the opportunity to be who they once were and often who they still wished to be. Yet as Perrier, Smith, Strachan, and Latimer-Cheung (2014) have identified, attachment to a specific athletic narrative may limit openness to sporting opportunities when that narrative type is no longer available. In the present study all participants remained physically active, which may reflect not only their openness to opportunity but also the considerable length of time which many had experienced chronic pain. As Perrier et al. (2014) and Burke (2006) have both suggested, it may take time and exposure to a variety of narratives for an individual to develop a new meaning of being an athlete.

In conclusion, this study adds to our understanding of athletic injury by focusing on chronic rather than acute pain. As such, it provides an initial insight into the sporting experiences of those athletes who continue to participate in chronic pain. This study adds to our previous understanding of injury by illuminating the narrative of imprisonment and considering that the causes of this imprisonment may be both physical and environmental. Further, this study highlights how athletes have coped with chronic pain, emphasising the importance of the body-self relationship and the difficulties associated with adapted sport. These findings may have important implications for practitioners working with injured athletes,

emphasizing that the experiences of those athletes in chronic pain may differ considerably from those in acute pain.

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