

Perceptions of playing-related musculoskeletal disorders (PRMDs) in Irish traditional musicians: A focus group study

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Abstract.

BACKGROUND: Playing-related musculoskeletal disorders (PRMDs) are common in musicians and interfere with the ability to play an instrument at the accustomed level. There is limited research into injuries affecting folk musicians.

OBJECTIVE: To explore the Irish traditional musicians' experience of PRMDs.

METHODS: Focus group interviews were conducted in 2011 and 2012, in two venues in Ireland. Data were recorded and transcribed verbatim. Data collection ended when no new findings emerged from the analysis of interviews. The inclusion criteria were: males or females aged 18 and above, and who taught or played Irish traditional music on any instrument. The data were analysed using the interpretative phenomenological method.

RESULTS: All participants ($n = 22$) believed there was a link between playing music and musculoskeletal problems. The main body areas affected were the back, shoulders, arms and hands. The main theme that emerged was: 'PRMDs are an integral part of being a traditional musician', and that the musical experience was generally prioritised over the health of the musician. There were sub-themes of 'fear' and 'stresses that contributed to PRMDs'.

CONCLUSIONS: PRMDs are an occupational hazard for Irish traditional musicians. There is an awareness of PRMDs, but changes (technique, environment) may threaten identity.

Keywords: Injury, disability, pain, folk music, work, leisure

1. Introduction

Musculoskeletal problems in musicians have been well documented in a variety of prevalence studies and reviews [1–5] and with prevalence findings of between 32 and 87%, playing-related musculoskeletal problems (PRMDs) are clearly a significant issue for

musicians [5]. Various reasons are given for the high prevalence of PRMDs in musicians such as the physical demands associated with the many hours of practice required to reach a high level of performance, performance itself, associated fatigue, the size and weight of the instrument, the (often asymmetric) posture required to play the instrument, and the repetitive nature of the muscular activity often involving rapid, end-range movements [1,4,6,7]. The lifestyle of being a musician is also linked to PRMDs. A recent study in the US found that musicians often worked part-time or were self-employed, often worked at night and on

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weekends, were required to travel to performances, and often had to supplement their income by working more than one job [8].

One definition of PRMDs is: problems that involve pain, weakness, lack of control, numbness, tingling or other symptoms that interfere with the ability to play an instrument at the accustomed level [9]. The consequences of PRMDs can be both physical and psychological, and may include the inability to play their instrument sometimes leading to changing their technique or instrument, permanent disability with difficulty in playing music and performing activities of daily living, sleep disorders, and an inability to earn an income [5,8].

Previous work has concentrated on classical musicians and there is a lack of literature related to Irish traditional musicians. O'Connor and McNamara [10] found that playing-related disorders are a significant problem for Irish traditional musicians and can result in a range of neurological abnormalities, and Dunne and Pettigrew [11] found that there is a culture of silence and stoicism within the Irish traditional music culture. Within the broad community of musicians, there are different sub-groups with different identities. One definition of identity by Smyth [12] is: *who* is performing *what* kind of music in *what* kind of arrangement using *what* kind of technology to *what* standard for *which* audience. He related this to the 'Irishness' of Irish traditional music and thus highlights the complexity of being part of this cultural identity. Irish traditional musicians perform within a unique context incorporating certain postural, social and environmental issues specific to their culture, and this uniqueness means that it may be difficult for health care professionals to manage any related PRMDs, and that pain and injury experienced by Irish traditional musicians may be different to that experienced in other Western cultures [11]. This study is, therefore, the first to explore the Irish traditional musician's perception of PRMDs.

Research into injuries affecting folk musicians is considerably limited when compared to those conducted with a focus on the classical music tradition. Buckley and Manchester [13] studied overuse injuries in non-classical recreational instrumentalists and found that a similar pattern of injury occurs in folk musicians as in classical musicians. However, research carried out at the University of Ulster suggests that there are differences in terms of injuries affecting classical violinists compared with Irish traditional fiddle players in terms of the type of pain experienced and

the attitudes surrounding possible preventative strategies [14]. This is reiterated in more recent research where Dunne and Pettigrew [11] suggest that "folk musicians play in unique postural, social, environmental and cultural contexts and may experience pain and injury in a fashion different to their Western Art counterparts." Therefore, the aim of this study was to explore the perceptions and attitudes of traditional musicians, and the traditional musicians' experience of PRMDs and how these impact on individual musicians and the Irish traditional music community.

2. Study design, setting and participants

A focus group methodology was used to enable researchers to gain a rich understanding of the issues being discussed, and to facilitate the interactions between participants when they discussed their experiences and thus enable researchers to gain a rich understanding of the issues being discussed [15]. Focus groups also elicit the exchange of beliefs and attitudes between people in similar situations. They are thought to be more natural than one to one interviews as participants are influenced and influence each other just as they do in real life [16] In addition, focus groups are felt to sensitize researchers to issues which they may not have considered.

The Research Ethics Committee of the University of Ulster approved the study. Informed consent was obtained from all participants who were identified using purposive sampling techniques [17]. The inclusion criteria were: males or females aged 18 and above, and who taught or played Irish traditional music on any instrument.

3. Data collection

Four single stand-alone focus group interviews were conducted in 2011 and 2012 in two cities: Limerick and Derry/Londonderry. There were between 3 and 7 participants in each group. A topic list for the following focus group interviews was generated from previous research conducted by the authors. Each focus group interview began with a general opening question regarding the instrument played and how long they had been playing it. This opening question gave each participant the opportunity to speak and introduce themselves to the group. This was followed by four questions asking the participants whether they were aware

of a link between playing music and developing any problems in muscles and joints, how someone with a PRMD would seek help, how someone could prevent or reduce problems in muscles and joints, and the level of willingness to integrate injury prevention strategies into their teaching. In each session, the moderator ended by giving the opportunity to participants to add any further comments that they thought were important to the topic. Each focus group interview lasted between one and two hours. Data were recorded and transcribed verbatim. Data collection ended when no new findings emerged from the analysis of interviews.

4. Analysis

An interpretive phenomenological approach to analysis was adopted whereby the researchers attempted to gain an understanding of the meaning of the musicians' experiences, and this methodology helps researchers to form understandings of human experiences and impart these experiences to wider audiences [18]. Summary statements were sent to the participants who verified the accuracy of the focus group discussion. The transcripts were verified for accuracy and subsequently anonymised prior to being analysed independently by two researchers (LMcK and IW), one of whom was involved in the design of the study and who moderated the group sessions (IW). The researchers analysed each focus group in turn and then met on a regular basis to compare themes and sub-themes. When each focus group analysis was complete, the themes and sub-themes across all three groups were identified. Although the researchers analysed the data independently, the same themes emerged in each analysis. There were two main themes: (i) identity, and (ii) the relative importance of music (and its performance) over the health of the musician, which is the theme being presented in this paper.

5. Results

5.1. Overview

Twenty two musicians participated in the focus groups ($n = 4$) that took place in two venues in Ireland. All participants had been playing for between 8 and 40 years. Participants included students, music teachers, performers and a university lecturer. Nine participants engaged with music in more than one way (per-



Fig. 1. Fiddle (photo by Mark McCorkell).



Fig. 2. Bodhrán.

forming, teaching, writing, music therapy) and many ($n = 11$) played more than one instrument. The instruments played by the participants were: fiddle ($n = 17$), piano/keyboard ($n = 8$), button accordion ($n = 2$), guitar ($n = 2$), flute ($n = 2$), bodhrán¹ ($n = 2$), cello ($n = 1$), tin whistle ($n = 1$), banjo ($n = 1$) and concertina² ($n = 1$). The musculoskeletal demands for each of these is quite different. Many are played with asymmetric postures such as the fiddle, bodhrán (Figs 1 and 2) and flute, whilst others are played in a more symmetrical position, e.g. the button accordion (Fig. 3) and tin whistle. All involve considerable finger, hand and wrist activities and many can be played in either a sitting or standing position.

¹The bodhrán is an ancient framedrum, traditionally made with a wooden body and a goat-skin head, and is played with a double-headed stick called a *cipín*, *tipper*, *beater* or *the hand*. (www.ceolas.org/instruments/bodhran/)

²A concertina is a free-reed musical instrument, similar to an accordion or harmonica, with bellows and buttons usually at both ends.

Table 1
Structure of the themes

Overarching theme	Themes	Sub-themes
Playing-related disorders are an integral part of being a Irish traditional musician	Fear	Avoidance Distrust
	Stresses that contribute to PRMDs	Physical <ul style="list-style-type: none"> – Playing environment – Postural stresses – The instrument – The way music is taught – The music being played Emotional/Psychological

5.2. PRMDs are an integral part of being a traditional musician

The overarching theme regarding PRMDs, was that PRMDs are an integral part of being a musician, and therefore, the music and the whole musical experience, was prioritised over the health of the musician. Within this over-arching theme, there were distinct themes and sub-themes (Table 1).

All participants believed there was a link between playing music and musculoskeletal problems, and although five participants did not have PRMDs themselves, they were each aware of one or more musicians who did. Although, three participants had injuries that had been sustained outside of playing music, playing music also affected these symptoms. Some participants identified more than one symptomatic area, and the main body areas that were affected were: one or both shoulders ($n = 6$), hands ($n = 4$), back ($n = 4$), wrists ($n = 3$), neck ($n = 2$), arm ($n = 2$), forearms ($n = 1$), thumb ($n = 1$), little finger ($n = 1$), jaw ($n = 1$) and general aches and pains ($n = 4$). The words used to describe PRMDs were pain, sore, cramping, tension, tiredness, weakness/loss of power, stiffness, tightness, twinges, pins and needles, and numbness.

Participants in each focus group independently mentioned a number of musicians they knew who had serious PRMDs, and although not explicitly stated, there was a definite acceptance that one of the hazards of playing traditional music, was that there were likely going to be accompanying PRMDs, and as Participant 13 said people who are playing at a really high level or are playing all the time, “and then a lot of people have problems”.

From this focus group data it seems that there is a culture of not taking playing related injuries seriously. One participant explains that he doesn't feel that traditional musicians treat injuries as seriously as other performers such as a classical musician or an athlete:

‘But we never even thought you know why someone or our parents even saying you should see someone or anything like that. Because it's music maybe it's not taken as seriously as a person who's into sports or even classical music.’ (P7)

Although there was agreement that playing music could lead to PRMDs, there was also a consensus that the musical experience was the most important factor, and any side-effects such as pain etc., were less important. Despite a cramped environment (and one participant (P14) described session playing as “probably the worst environment for your body”), musicians would still continue to play regardless of discomfort because “it's all so exciting” (P14), and “the love of the sessions take over, and they just sit for another five hours” (P2). The need to play was so strong that even when musicians sustained injuries that resulted in having to limit or stop playing, “musicians who've developed such bad problems will just swap to another instrument” (P14).

Some participants mentioned that “they kind of need their income” (P2), and that financial pressures were also to blame for PRMDs.

5.3. Theme 1: Fear

There also appears to be an underlying fear that musicians may sustain an injury and that they would no longer be able to play, or they may have to change instrument. The theme of fear emerged in all focus groups and whilst it related primarily to the fear of not being able to play music, there were sub-themes related to (i) avoidance and (ii) distrust of health professionals.

This fear seems to be fuelled by stories heard about other respected musicians.

‘I think there is this massive fear of *having* to give it up, and maybe that's what it is, there's a block there where you know that – you know you go to somebody that they might tell you to *stop* playing



Fig. 3. Button accordion/concertina. (Colours are visible in the on-line version of the article; <http://dx.doi.org/10.3233/WOR-131737>)

for 3 or 4 months and for people who are playing professionally a lot of time they can't afford to do that because they're either teaching or playing. And people who are doing it as a past-time a lot of the time don't want to give it up for some reason either because I suppose a lot of them it's their outlet for enjoyment and I think that that could be something to do with it. I know it's just that they don't want to be actually told that they have to stop.' (P11)

5.3.1. Sub-theme 1a: Avoidance

The conflict between the desire and need to play, and the recognition that PRMDs could affect their playing, a major part of their lives, seems to manifest itself initially as avoidance of dealing with the problem and playing through the pain, and then, when "it's too painful, then they'd stop and wait for the next session, and play again" (P14).

When a musician decides to seek help for PRMDs, there was a general consensus that the first people to go to when seeking help, were fellow-musicians, who could identify with the issues and could perhaps recommend trustworthy sources of help. The kind of help referred to included stretches, massage, using the Alexander technique, cranio-sacral therapy, yoga and Pilates. When a musician switches to a different instrument, they may avoid the PRMDs caused by the primary instrument and are able to remain as part of the musical community, but this does not necessarily address the reasons for the PRMDs in the first place. The management of PRMDs as stated by the participants is illustrated in a flow chart (Fig. 4) and the comment by participant 17 (below).

'I think people will look for help only when they are really in such a state that they can't play any more. Most people will go into denial – at least, that is my experience – and will say "I am tough. I can play through this" and then of course it gets worse. Finally when they can't do anything else, that is when they will go and seek help, when they have to either seek help or stop playing.' (P17)

5.3.2. Sub-theme 1b: Distrust of health professionals

Several participants commented on the lack of specialist knowledge of health professionals regarding the unique needs and issues related to managing and treating PRMDs in musicians. There was a fear that a medical intervention could do more harm than good, and this was a risk many were unwilling to take. There were many statements such as "the first call would normally be the doctor, [but] he doesn't understand where you're coming from" (P1), and seeking medical help was considered "a struggle" with an unsatisfactory outcome: "it always seemed to end up [that you're] offered a steroid injection or not" (P20).

The participants highlighted the lack of support for musicians, and in particular, the lack of identified health professionals who have specific expertise in, and knowledge of the performance culture and playing techniques of traditional musicians.

5.4. Theme 2: Stresses contributing to PRMDs

Traditional musicians perform in a variety of settings and the 'session' was a setting that was referred to consistently across all focus groups as part of the culture of playing, and bringing with it the motivation for playing as well as related challenges. The stresses that contributed to PRMDs fell into two main categories: (i) physical and (ii) emotional/psychological and were perceived by the participants to be directly related to PRMDs.

5.4.1. Sub-theme 2a: Physical

The physical stresses identified by the participants fell into four broad categories: the playing environment, their own posture, the instrument itself, and the type of music being played. These stressors were identified across all the groups.

Playing environment

A session is usually at night and often in a pub (a public house or bar) where musicians gather in one

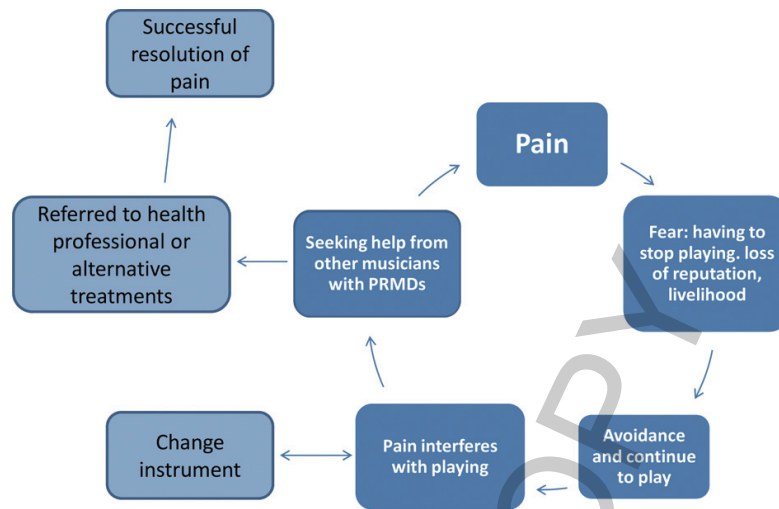


Fig. 4. Management of PRMDs in traditional musicians. (Colours are visible in the online version of the article; <http://dx.doi.org/10.3233/WOR-131737>)

part of the room and play for up to several hours at a time. Although there may be some formality (for example, certain musicians may have committed to being there, and may be paid) there is often a less formal atmosphere whereby other musicians can arrive and join in an impromptu way, and this is often one of the session's great features as there is a very inclusive atmosphere. The 'audience' is made up of themselves, other musicians, and other patrons of the pub. The atmosphere, camaraderie, music and associated kinship and community spirit within the musical group creates a powerful and memorable experience, and is thus a great attraction to anyone interested in traditional music, and a motivator for musicians who want to play and take part in a session as stated by (P14) "I think you get so taken by tunes, especially in sessions...".

Being in a setting that is not specifically designed for musicians or performance, brings challenges, and one of the main issues mentioned was seating "you're just sitting in weird positions and in weird chairs" (P13). Some mentioned that in a session a musician could be "crammed into a corner of a pub and you do find that it is strenuous across the back" (P11) and this experience was reiterated across all the groups.

Even though there was a unanimous awareness of these challenges, especially regarding seating, the culture of playing in a session is one where there is such a need to contribute and be part of the group, that many musicians would be reluctant to disturb the session or draw attention to themselves (and thus away from the music) by asking for more space or bringing the issue to everyone's attention.

'I suppose it's like politeness... There's a kind of etiquette there you know, everybody in the session must be happy [general yeah] – do you know what I mean, and to make everybody happy, everybody kind of crammed up here 'Jez, I'm crammed up here!' – so they're *not* happy actually, but still you're kind of suffering yourself because everybody wants to play and it's a social thing you know.' (P8)

Postural issues

Participants were very aware of postural issues and related them to PRMDs "I find that when I'm in a comfortable position, and that's usually hunched, then I'm sore afterwards" (P4). Several participants mentioned that if they "held themselves better" (P14), or played with less tension, that that would reduce the incidence or onset of PRMDs. One person (P17) had found that by changing her posture using a combination of the Alexander technique and body mapping, that she no longer had any problems. Others across the groups also mentioned using the Alexander Technique as a way to correct posture and reduce PRMDs, though few seemed to persevere, perhaps because the identity of being a traditional musician does not include doing warm-up, or other exercises as stated by Participant 2 "because if you say 'oh this is injury prevention for musicians' and people would laugh at you".

The instrument

The quality and physical size, weight or dimensions of an instrument was a factor considered rele-

vant to PRMDs, as well as the technique needed to play the instrument, i.e. whether the musician had to hold the full weight of the instrument (as in a fiddle or flute) or could support the instrument in some way (such as playing the guitar or concertina when sitting). There was general agreement that poorly made (often cheaper) instruments were likely to be heavier, wider and more difficult to play. Some participants alter the instrument in some way so as to reduce stress, and examples mentioned were lowering the bridge on a fiddle to bring the strings nearer the fingerboard, re-hairing³ the bow more frequently and adding padding to the instrument to reduce slouching. Participants in two groups mentioned instrument-makers creating instruments with different adaptations in order to reduce ergonomic strain.

‘you take a cheap piano or keyboard or something like that something that – the action is really heavy. You know, you can end up with problems from that, playing that same accordion, it feels like you’re playing a typewriter, banging away – that’s not going to make life easy on yourself. So I notice instrument makers that are working on being able to produce better quality instruments in terms of the actual response, even the set-up of ... If it be the mandolin or banjo, the neck is right – the strings are the right height... and for the likes of the tension you’re not having to dig into it to get the sound.’ (P1)

The way music is taught

There was a clear theme that the teaching culture of traditional music, and the way it is taught may contribute to PRMDs. Some of the factors mentioned were the class sizes, the culture of ‘copying’ the teacher’s postures, techniques and playing style, and the lack of an agreed ‘correct’ way to play. Many participants spoke about the lack of emphasis on posture when they were learning to play: “Just hold the fiddle, hold the bow”, “put that up there – there’s your bow, work away” (P8). Within the traditional culture, many people teach themselves how to play an instrument and there is a strong aural-learning culture where music

³The bow is made from horse hair strung between two ends of wood. These horse hairs tend to break during playing, particularly during fast or loud music, so gradually, the hairs become fewer and fewer, with less and less sound being produced. Therefore, the bow needs to be re-haired every so often – depending on the amount and type of music being played.

is learned by listening and participating in sessions, rather than from a music book.

Some participants believed that there was a ‘right’ and ‘wrong’ way to play an instrument, and whether or not a student learns the correct technique, seems to be a matter of chance as Participant 15 said “when I was there, I was taught how to hold the fiddle properly and maybe that’s what’s saved me”.

The music being played

The music itself was considered an issue; the intensity, speed and technical demands of the music as well as certain performance environments were considered to be more likely to bring on PRMDs than others.

‘Yeah I do [agree that speed is an issue]. ... the faster it [the music] is, the more pressure that you are trying to get like your ornaments⁴ in ... , I think you just automatically tense up to try and get everything in there. Whereas if you go slower, it wouldn’t be as hard’. (P3)

5.5. Sub-theme 2b: Emotional/psychological

Many participants spoke about being nervous, anxious, tense or stressed, and the adverse effects of these stressors as illustrated by the quotes below. However, there was a consensus that learning to relax would help the musician play better, and leave them less at risk for developing an injury.

‘Because I find if I don’t do that it will take me maybe 5/6 numbers into the gig to get relaxed even. You wouldn’t get anyway relaxed at all. And it affects your brain completely, it really does. I find too that you actually start worrying about it once you even ... like I definitely would have more problems when I’m in a performance situation in front of a crowd, so I think that actually being nervous can have a lot to do with it. I find that while – you know, the majority of the time for me, if I sit down and play in a sessions, 9 times out of 10 you won’t have a problem. Get up in front of a microphone and play, all of sudden, bang, there it is ... I do think it’s probably, in my mind, it’s no coincidence that that’s when I get the bulk of my problems, you know.’ (P8)

⁴Ornaments are musical embellishments, often quite complex, that are added to the basic melodic line.

6. Discussion

This study investigated Irish traditional musicians and playing-related musculoskeletal disorders (PRMDs). Whilst much of the literature acknowledges that PRMDs are a problem for musicians [2,5,7,19] it was not known whether Irish traditional musicians also suffered with PRMDs. We found that 18 of the 22 focus group participants had experience of PRMDs and the remaining 4 participants knew of someone who had a problem that was severe enough to interfere with performance. Each group referred to people they knew who had had to stop playing for a length of time because of PRMDs.

6.1. *Being an Irish traditional musician*

The participants in these focus groups clearly identified that they had a traditional background, and some specifically stated, and thereby emphasised the difference, that they had received some classical training. The social aspect of being a musician is hugely important and much of the traditional music environment is within the context of sessions and festivals [11] and Vallely [20] described the festival atmosphere as “The impromptu pub and campsite session scenes – people drawn by the magic created by the presence of music – and the workshops given by well-known performers, make it all a feverish focus of constant music and learning”. These environments (pubs and campsites) are not designed for performance and so may contribute to poor posture and PRMDs [11]. However despite the discomfort, the participants’ statements suggested that music and its performance came first with the consequence that music was deemed more important than the health of the musician. This belief and resultant actions of ignoring the pain for as long as possible, was supported by another study investigating Irish traditional musicians [11].

6.2. *Being a musician; no pain, no gain?*

It is perhaps not surprising that musicians, in order to preserve their identity as musicians, will avoid dealing with threats such as pain and injury, and thus find it difficult to seek help especially when that help is not perceived to be specific to musicians and their needs [21,22]. There is a fear that acknowledging PRMDs may have negative consequences such as having to stop playing, or loss of employment [2,4,23–25] so many musicians will ignore pain in order to keep

playing, thus maintaining their identity and place as a musician in the community, reasserting normality and reaffirming one’s sense of self [21,22,26,27].

Musicians are a very select group of people. In order to be successful, they must embrace the three Ds: desire, dedication and discipline [28] and like athletes, they need to have a very special set of skills and continuously rehearse so as to achieve the level of performance and perfection they seek. This requires physical and mental strength, endurance, manual dexterity, technical precision and the ability to play repetitively and rapidly day after day, year after year [2,4,27,28]. The drive to continue playing, even through pain, has been attributed to passion and the willingness to endure challenges in order to achieve the goal of being a musician [29], and this is supported by the findings in this study where despite physical inconveniences such as inappropriate seating and performance environments, the musicians willingly continued to play and participate in the musical session.

It is likely that many interventions that have helped one group of musicians, may be transferable to traditional musicians, however, caution must be applied as the differences between traditional musicians and others are significant, and these must be taken into account when considering how to manage PRMDs in this musical community. Music is a passion, a career, an intrinsic part of life [4,21,26,29] and therefore not readily abandoned, so health professionals will need to be sensitive to these factors when considering their management of PRMDs.

We also found that there were some commonalities when Irish traditional musicians are compared with other musicians. Long hours of playing and practice, posture, stress (including physical, emotional and financial stress) and the music being played were all associated with PRMDs in keeping with other work investigating different musicians and musician groups [1,5,7,8,21,22]. Similarly, the participants in this study highlighted the lack of engagement with the medical community, a finding also highlighted by Ackermann et al. [7] and there are suggestions that this is because health professionals are not aware of the specific needs of the musician, and that healthcare providers are unhappy about the quality of care given to musicians [30]. This supports the musicians’ beliefs that managing PRMDs in musicians is an area of specialist knowledge, and suggests that healthcare providers without this knowledge may not provide satisfactory care in this elite population.

There were differences, however, between the Irish traditional musicians in this study, and other musicians,

primarily related to the environment and specific cultural differences that are unique to Irish traditional musicians, and this is supported by work carried out by Grant and Wilson [14] and Dunne and Pettigrew [11].

6.3. Managing PRMDs in musicians

Whilst many interventions for muscle, tendon and joints problems may be transferable across different populations and client groups, these must be applied judiciously taking into account the needs of the person as a musician, and then as a musician within the Irish traditional culture. The differences that identified the participants as 'Irish traditional' musicians in this study (such as posture, technique and environment) must be considered when managing PRMDs. If one of these key identity components is associated with an injury or PRMD, then it will be very difficult for the musician to change, as this may challenge their identity within the Irish traditional musical community. One way of doing this is to assess the musician with the instrument in order to more accurately identify postures and techniques that may be contributing to the PRMDs, and to provide individualised treatment specific to the person and their needs [13,21]. Health professionals such as physiotherapists, occupational therapists and others are ideally placed to deliver this care and work with musicians on an individual basis.

Prevention strategies are to be encouraged [24] and these can be adjusted in such a way that the identity of the musician is not threatened. There is a considerable wealth of knowledge on injury prevention within other communities such as athletes, and it is likely that injury prevention strategies that work successfully (especially in relation to repetitive strain-type injuries) could also be adapted and applied successfully to musicians [31].

7. Conclusion

PRMDs have been identified as a considerable risk for all types of musicians [1–5]. This study is the first to investigate PRMDs in the Irish traditional music community, and has confirmed that PRMDs are a significant problem among this group. Further, despite the awareness of PRMDs, traditional musicians are likely to avoid seeking help because they distrust the medical community, and fear being told they must stop playing. Although there may be common elements across the different types of musicians, health professionals must be mindful of the specific stresses within individual musicians, and provide support that does not threaten the identity and culture of the traditional musician.

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